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**CHEMISTS', DRUGGISTS', & ALLIED TRADES
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TO BE HELD AT

**THE ROYAL AGRICULTURAL HALL, LONDON,
APRIL 22, 24, 25, 26, 27, 28, 29, 30, 1893.**

THE idea of holding an Exhibition and Market for these Trades, while it is distinctly novel as applied to them, promises success from the support already vouchsafed to it by the leading houses of the Trade, and by the extent and variety of the articles to be shown. The patronage of the Medical Profession and of the Public is likely to still further assist the undertaking. A first list of patrons will be published at the beginning of the year, and future announcements will reveal many striking novelties which will induce many visitors, both inside and outside the Trades, to take a practical interest in the Exhibition. There will be a

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CHEAP TRAINS WILL RUN FROM ALL PARTS.

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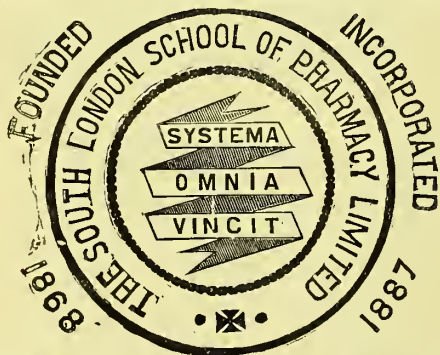
Principal: Mr. R. C. COWLEY, Ph.Ch.

Mr. COWLEY, who has been managing the School during the late Mr. Ward's illness, has made arrangements to entirely take over the School in January.

The following gentlemen passed the Minor in October:—

Mr. F. J. Boardman	Wigan
Mr. J. V. Booth	Torrey
Mr. J. Parry Evans	Wrexham
Mr. H. Sproston Lean	Liverpool
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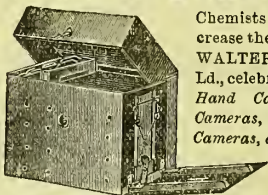
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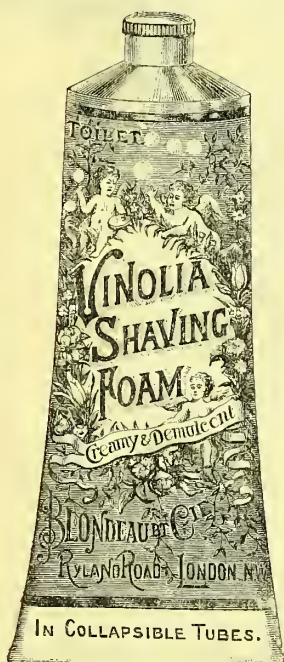
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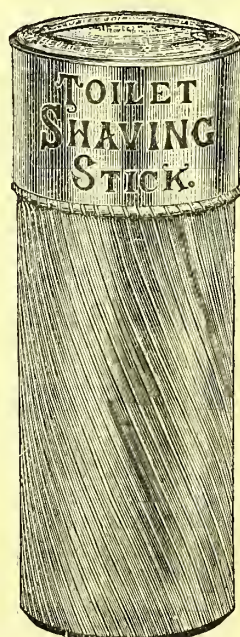
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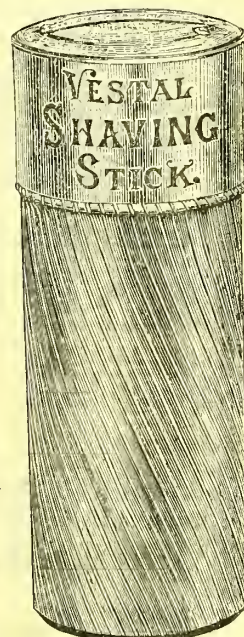
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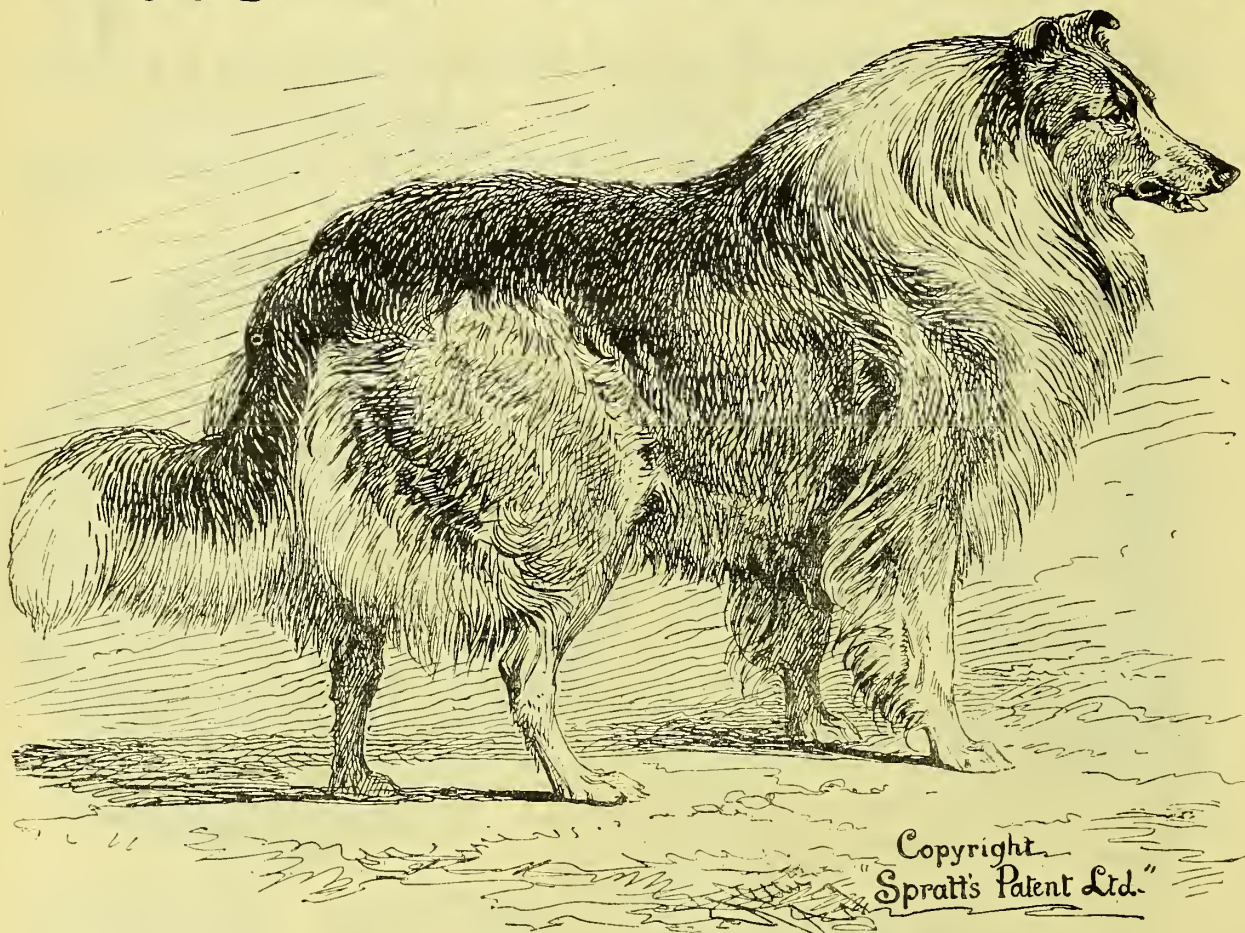
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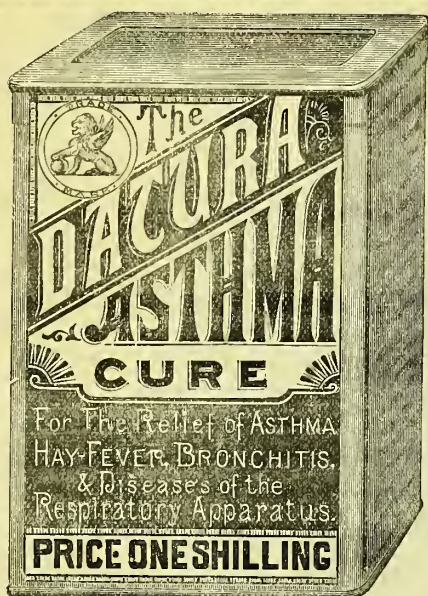


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Handsomely packed in Tins, to retail at 1/- each.

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A Pleasant, Palatable, and Efficient Substitute for Alcoholic Stimulants.

Price per lb., 10d. W. Qts., 9½d. 10-gallon Casks, 8½d. per lb.

In 4-oz. bottles, packed in cardboard outers, 4/6 per dozen.

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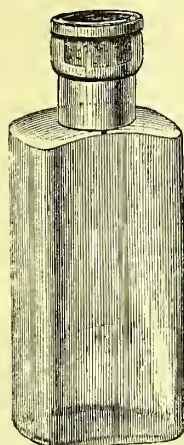
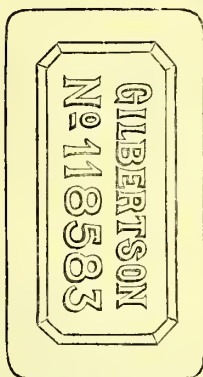
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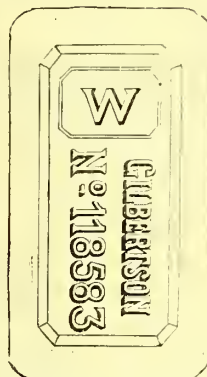
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JANUARY, 1893.

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SIZES.	BEST.
Oz.	GROSS.
1	9/6
1½	9/6
2	9/6
3	10/9
4	10/9
6	12/-
8	12/-
10	19/-
12	19/-
16	21/6
20	27/-
24	32/6
32	43/-
40	49/-

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Owing to the unprecedented success of GILBERTSON'S DISPENSING BOTTLES, No. 118583, with rounded corners, the Inventors have had (for the benefit of those who still adhere to ordinary Direct Squares) the same improvement adapted to that shape; and they can assure their customers that the advantages of safe packing, easy labelling, &c., equally applies to both shapes.

Extract from "C. & D.," 19th Nov., 1892.

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Extract from "C. & D.," 27th July, 1889.

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H. G. & SONS beg to notify that their name and number appear on best quality only, either in conjunction with the "W" Trade Mark or without (see facsimile of bottom of bottles).

PRICES

WHEN SUPPLIED
DIRECT
FROM WORKS.

SIZES.	BEST.
Oz.	GROSS.
1	9/-
1½	9/-
2	9/-
3	10/3
4	10/3
6	11/6
8	11/6
10	18/6
12	18/6
16	21/-
20	26/-
24	31/6
32	42/-
40	48/-

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FREE.Casks for Export are
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GILBERTSON'S No. 118583 DISPENSING BOTTLES are supplied with Flat, Globe, or Cut Globe Stoppers; also made in Actinic Green, Amber, and White Flint.

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Swan-necked carboys, three 1-gallon and four 2-gallon. For full dimensions, price, &c., write, Scholes, Eccles, Lancashire.

Job lines in ointment-jars, new.—Pink, dome tops, ¼ lb., 6s. doz.; 1 lb., 12s. doz.; 4 lb., 27s. doz.; blue, canopy tops, ¼ lb., 4s. doz.; 1 lb., 9s. doz.; 4 lb., 16s. doz. Natali, 40 Gray's Inn Road, London.

Job line.—A 12 doz. set of gold-labelled shop-rounds, English hand-made, guaranteed quite new (sizes, 2 doz. each 40 oz., 20 oz., 16 oz., 10 oz., 8 oz., 6 oz.), in equal quantities, wide and narrow mouth, 5½ per set, or can be divided; syrups, 11s. doz. Natali, 40 Gray's Inn Road, London.

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A pair swan-neck carboys (4-gallon), cut necks and stoppers, a 10-gall. pear-shaped ditto and stand, and several smaller ones; plate-glass showstands, 3-tier, 3 ft. 6 in. long, 55s. each: ditto, ditto, 15 in. square, 25s.; pill-machines, mortars and pestles, and a job lot of mirrors, &c. E. Natali, 242 Old Street, London, E.C. Only address.

Set of shop-rounds, labelled, about 12 dozen various sizes; Avery's scales, &c.; all perfectly new; 20 per cent. off list prices. Walker, Upper Brighton, Liverpool.

Shop-fittings, second-hand, for sale, great bargains; 12-ft. run of drawers, mahogany fronts with glass labels and knobs, 8½; plate-glass-fronted counter, 5½: dispensing-screen, desk, and case, 5½; other fittings cheap. Phillip Josephs, 54 Old Street, Goswell Road, London.

Miscellaneous.

Six dozen Imperial flag shades; what offers? 4½/41, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

"Simplissimus" self-inking printing-machine, for sale; prints 7 by 11; thorough working, order: selling to make room for larger machines. A Cheetham, Electrician, Rhyl.

Job Lines.—Sponges, about 25 doz. little soft Turkey for bathing wounds, 1s. doz., 3 doz. 2s. 6½ free; toothpicks (quill), 16 boxes, 1 doz. 3d packets each, 1s. 8d. box, free Brooks, Chemist, Hornsey, N.

WANTED.

One or two tubes of opthalmine. Herbert, Chemist, Wavertree, Liverpool.

At once, chemist's fittings, shop-bottles, carboys, &c., &c., second-hand; must be cheap. H. Colard, 86 Leadenhall Street, E.C.

Carbolic acid, liquid 95 per cent., wanted few casks, colour no object if cheap. "Carbolics," c/o THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

A few copies of *The Chemist and Druggist* for October 8, 1892, in good condition; 4d. a copy offered. Please address, A. Eckenstein, 29 Douglas Road, N.

"SILVER CHURN BUTTER COLOURING."

All Chemists who stock this will be supplied with our New 1893 Calendars (six varieties), for distribution among their customers, if they will kindly post-card us saying quantity required.

PLEASE GIVE FULL NAME AND ADDRESS TO

OLDFIELD, PATTINSON & CO.
WHOLESALE DRUGGISTS. MANCHESTER.

SPONGE IMPORTERS.

M. PETERSON & CO.,

(ESTABLISHED 1870),

75 ST. ANNE STREET, LIVERPOOL.

FOR HOME, FOREIGN & COLONIAL MARKETS



SACCHARUM LACTIS

(SYSTEM LANGEN).

Highly recommended by authorities. The only make of perfect purity in all respects.

AGENTS—

[2]

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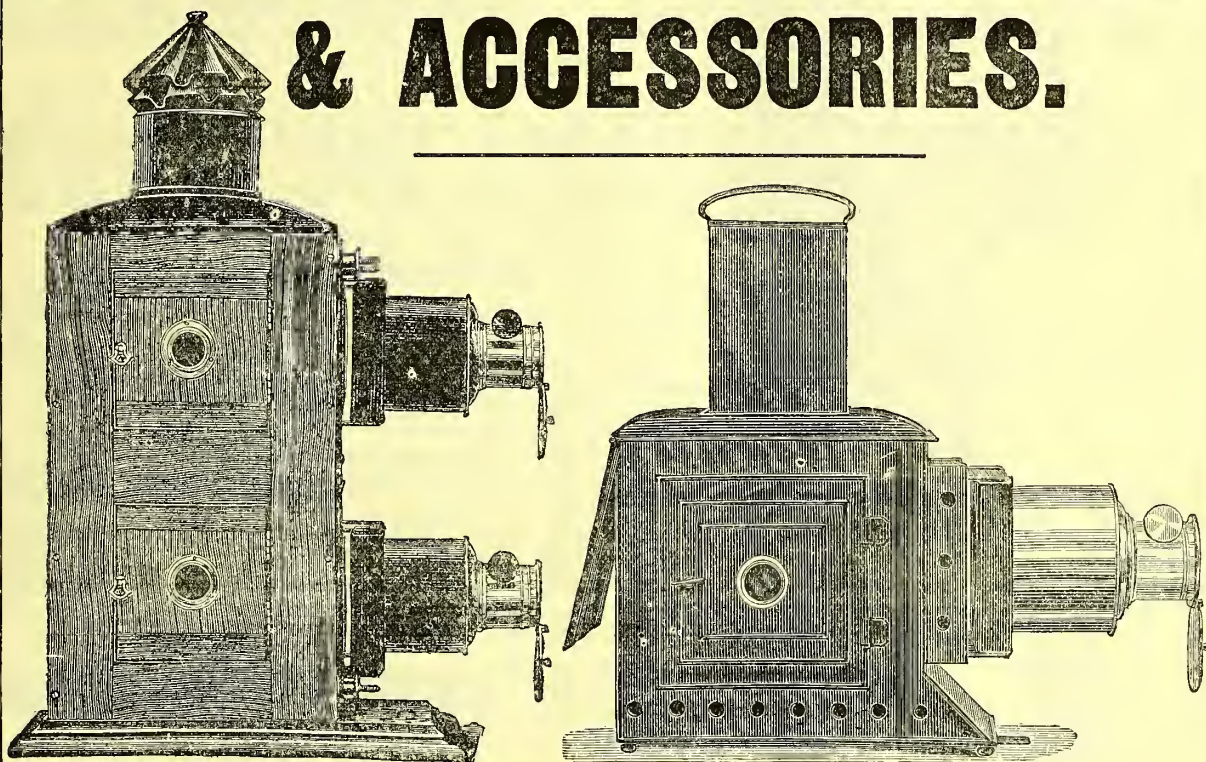
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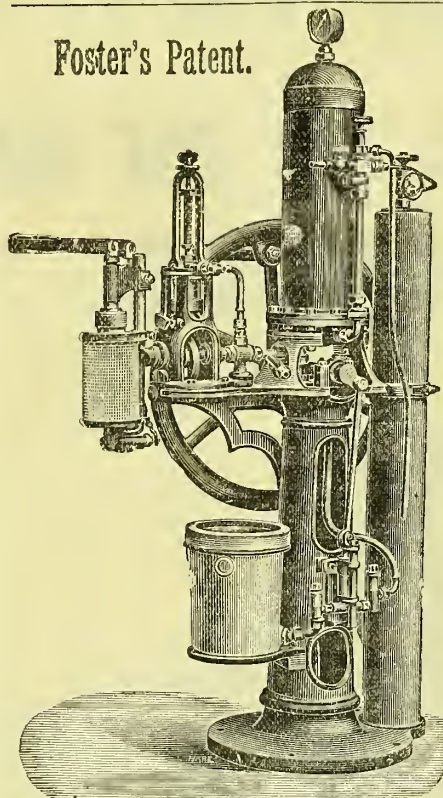
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SODA WATER MAKING

WITH
LIQUEFIED CARBONIC ACID GAS.

Foster's Patent.



The No. 2 Compact Soda Water Machine.

THE No. 1 "COMPACT" MACHINE

Is specially designed for Chemists and Hospitals, and can be used for either Syphon, Ball-stoppered Bottles, Cork or Screw-neck Bottles.

Producing capacity, by hand power, 60 dozens per hour.

PRICE £60.

Or, if fitted for steam power, 120 dozens per hour (with an extra filling machine).

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(AS SHOWN)

Made on the same principle, but smaller in its capacity.

Producing capacity, by hand, 30 dozens per hour.

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Or, if fitted for steam, 60 dozens per hour (with an extra filling machine).

Iron Vessel containing an average of } 10s.
28 lbs. by weight of Liquefied Gas } each.

And has sufficient Gas to manufacture about 18 gross of highly-charged Soda Water (10-oz. Bottles), or double this quantity of splits.

These Machines occupy little space, and are ready for use immediately! They require no fixing! Are self-contained and produce soda water, lemonade, &c., of the highest class and greatest purity, at a minimum of cost.



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"NIAGARA"
BOTTLE

OR

IMPROVED CODD'S

Is the most perfect
Bottle in the Market.

Send for Sample &
Compare.

PRICES ON APPLICATION.



THE
"LONDON-MADE" SYPHON

(Title Registered).

It is the Cheapest, Strongest, Handsomest, and Best in the World.
Pure Block Tin Tops.

PRICE 1/6 EACH.

Nickel-plating Tops from 3d. each. Silver-plating Tops from 4d. each.
Marking on Tops Free for orders of 250. Marking on Vases Free for orders of 1,000.

Before placing your orders elsewhere see Foster's latest improvement—

THE PATENT
CHECK VALVE.

Which renders it impossible for the water to splash over, however suddenly the lever is pressed!! The effervescence is nearly equal to that of water taken from corked bottles!! Sweet Drinks can now be taken from a syphon with much less frothing!!

CAUTION!—The public will have no other when they have once tried this improvement.

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COMPRESSED (OR LIQUEFIED)**PURE****CARBONIC ACID GAS**

FOR PRODUCING

MINERAL AND AERATED BEVERAGES

OF THE HIGHEST QUALITY.

FREE FROM MINERAL ACID AND OTHER IMPURITIES.**SOME OF ITS ADVANTAGES:—**

No Generator required	Chemical purity and safety	Saving in Machinery
No Mineral Acids to use	Freedom from atmospheric air	Saving in Driving Power
No Whiting or its substitutes	Vitriol splashing avoided	Saving in Wear and Tear
No refuse to get rid of	More perfect aeration	Saving in Labour
No choking of sewers	Produces cold during expansion	Saving in Time and Trouble
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SODAWATER MACHINERY

AND APPLIANCES
BRATBY & HINCHLIFFE LTD

ANCOATS & 146 MINORIES
MANCHESTER & LONDON CO

81 ROBERTSON STREET, GLASGOW.

PRICES.

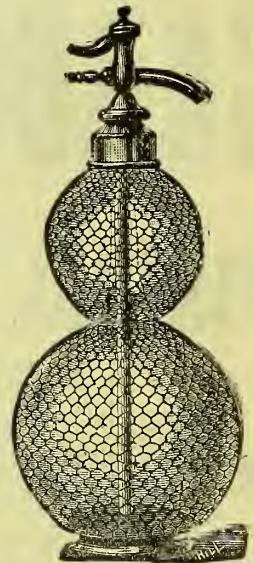
SYPHONS ... 1/6 1/8 and 1/10 each.

SELTZOGENES.

1	2	3	4	5	8 pint.
5/8	6/2	7/	8/	9/11	15/6 each.

Including two funnels and stopper for charging.

All our Seltzogenes are manufactured on the well-known "Fevre" System, and each one is thoroughly tested before leaving the works.



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HAY'S

SOLUBLE ESSENCES

ARE GUARANTEED TO BE THE FINEST IN THE MARKET

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W. HAY, MANUFACTURING CHEMIST

MULL

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Royal Leamington
APNEUMATIC

TABLE WATERS

Were first supplied to H.M. the Queen in 1856,
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KINMOND'S GINGER ALE,

AND ALL THEIR OTHER WATERS,
Are UNRIVALLED for PURITY and QUALITY.

In Ordinary Bottles and Syphons.

MANUFACTORY- LEAMINGTON.

Send for Trade List and Compare Prices.

Telephone No. 7547.

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"CAMWAL"

MARK.

TOPS THE TRADE

ONLY PRIZE MEDAL,



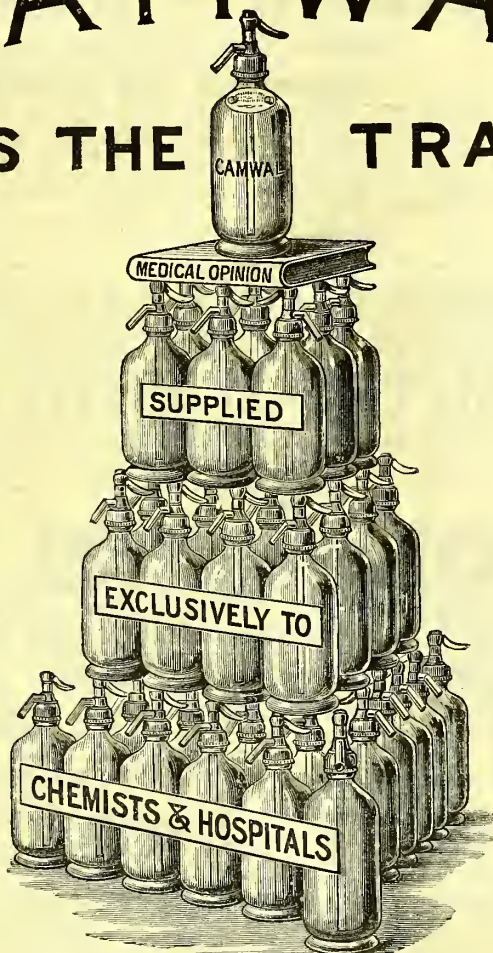
LONDON, 1881.

RAISED BY THE
PERSISTENT ENERGY
AND GREAT CARE
OF CHEMISTS

Year	No. of Members	Dividend
1878	119	None
1879	350	None
1880	430	None
1881	540	None
1882	815	3½
1883	708	5
1884	908	6
1885	1,193	8
1886	1,493	6

TELEGRAPHIC ADDRESSES:

Rubine, London.
Chemists, Starbeck, Harrogate.
Camwal, Bristol.



HIGHEST PRIZE MEDAL,



BRADFORD, 1882.

STRENGTHENED AND
SUPPORTED BY THE
APPROBATION OF THE
MEDICAL PROFESSION

Year	No. of Members	Dividend
1887	1,612	7½
1888	1,892	6
1889	2,031	7½
1890	2,088	8½
1891	2,163	10
1892	2,312	10%

TELEGRAPHIC ADDRESSES:

Rubine, London.
Chemists, Starbeck, Harrogate.
Camwal, Bristol.

This Company manufactures the various descriptions of Mineral Waters of the highest class and of specified formula, and supplies **ONLY** Chemists and Hospitals.

PRICES.

			In Corked Bots.	In Syphons.					In Corked Bots.	In Syphons.
Carbonated Water	"	"	"	1/-	1/8	Lime Juice	"	"	"	1/-
Soda	"	5 Grains to Half-Pint	"	1/-	1/8	Ginger Ale	"	"	"	1/-
Soda	"	B.P. 16	"	1/-	1/8	Ginger Beer, Glass	"	"	"	1/-
Potash	"	6	"	1/-	1/8	Lithia, B.P. 5 grains to Half-pint	"	"	"	1/8
Potash	"	B.P. 16	"	1/-	1/8	Iron and Quinine Water	"	"	"	1/8
Seltzer	"	"	"	1/-	1/8	Mineral Acid	"	"	"	1/8
Lemonade	"	"	"	1/-	2/8					

Syphons, 24s. per dozen.

Cases—3 dozen 3s. 6d.; 4 dozen 4s. 6d.; 6 dozen 5s. 6d. each.

Empties allowed for at same prices.

3d. per dozen charged extra for the delivery of Syphons in London.

SYRUPS.

In 26-oz. bottles, handsomely labelled and capsuled. Raspberry, Strawberry, Cherry, Red Currant, Black Currant, Pine Apple, &c., 8/- per dozen. Lime Fruit Cordial, 6/6 per dozen. Bottles charged 1/- per dozen, and allowed for on return.

A holder (Chemist) of £1 share is entitled to all the advantages of this Association.

SAMPLE CASE OF WATERS SENT FREE.

Handbills with Name and Prices supplied gratis to Shareholders.

The Chemists' Aerated and Mineral Waters Association, Limited,
LONDON, HARROGATE, & BRISTOL.



ROBINSON'S LIEBIG'S BEEF WINE.

Composed of Liebig's Extract of Beef, Extract of Malt,
and sound Port Wine.

REPORT ON BEEF WINES.

From the results of my Analyses of various Beef Wines I have had occasion to examine, none have equalled as regards strength, purity of ingredients, and (of no less importance) the skilful and judicious manner in which the respective ingredients have been proportioned and combined, the Liebig's Beef Wine manufactured by Mr. B. ROBINSON, of Pendleton, Manchester.

It is in every sense a reliable preparation, embodying in a pleasing and palatable form all the acknowledged medicinal and nutritive properties pertaining to Liebig's Extract of Meat, Extract of Malt, and sound Port Wine.

WILLIAM ELBORNE, F.C.S., F.L.S.,

Lecturer on Materia Medica in the Owens College, Manchester (Victoria University.)

December 15, 1888.

ROBINSON'S ORANGE WINE.

Specially prepared for Quinine Wine, does not deposit, will keep good in any climate, and well adapted for Export Trade. Supplied in Casks containing 9, 18, 30, 60, or 120 Gallons. Terms on application. [2]

PHARMACEUTICAL SHERRY WINE.

This Wine is well adapted for Pharmaceutical Preparations, and is the strength ordered by the B.P. Price, in 6-Gallon Casks, 5/6 per gallon; in 2-Gallon Jars, 6/- per gallon, carriage paid. Casks charged 7/6, Jars 2/6, and allowed if returned. Cash or satisfactory reference to accompany order.

B. ROBINSON, Distiller and Brewer of British Wines, Church St., Pendleton, Manchester.

PURE ORANGE WINE

(VINUM AURANTII, B.P.), prepared in strict accordance with the Formula of the British Pharmacopoeia.

MOST SUITABLE BASIS FOR QUININE AND OTHER MEDICATED WINES.

A. MILLAR & CO., DUBLIN; and 47 MARK LANE, LONDON, E.C.

Or of H. J. ROYDANT & CO., 75 Acre Lane, Brixton, S.W.

GOLD MEDAL, Amsterdam, 1883. DIPLOMA OF HONOUR, Paris, 1887.

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MACHINISTS, PATENTEEs,

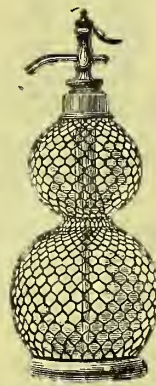
PARIS—72 BOULEVARD DE LA GARE, 72—PARIS.

SYPHONS WITH SHORT LEVER, with Metal Tops of Pure Tin, carefully mounted, and the glass of the *first quality*.

GAZOSELTZ, for the instantaneous production of Aërated Beverages at table. Anyone can use them.

"CONTINUOUS PROCESS" Apparatus complete, guaranteed without flaw in construction, possessing perfect action, and tested to a high pressure, while fulfilling every desirable condition of sanitation and economy.

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THE GUARANTEED PRODUCT OF PRIME OX BEEF.

WHOLESALE PRICE—

12/6 & 21/6,

LESS USUAL DISCOUNT.

INVALID BOVRIL

SPECIALLY PREPARED FOR INVALIDS.

SOLD ONLY BY CHEMISTS.

RETAIL PRICE—

1/3 & 2/-

PER POT.

50 times more Nourishing than Meat Extract or Beef Tea.

MASON'S

EXTRACT OF HERBS.

" DANDELION
" SARSAPARILLA
" HOPS
" GINGER
" GINGER ALE
LEMONINE
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CIDERINE
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WINTER EXTRACT
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MASON'S

WINE ESSENCES.

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COWSLIP
STRAWBERRY ORANGE
BLACK CURRANT
RED CURRANT
LEMON
LIME FRUIT QUININE
JARGONELLE
PINEAPPLE
SARSAPARILLA
LEMON SQUASH
CHERRY PEPPERMINT
CLOVES ELDERBERRY
"WARMINE"

MASON'S
Wine Essences
Produce TEMPERANCE WINES
by the simple addition of SUGAR & WATER

Delicious
as the
Fruit

MOST REFRESHING
at
CHILDRENS
PARTIES

6d 1/- & 2/-
BOTTLES
Post 3d EXTRA

INVENTORS:- NEWBALL & MASON, Hyson Green Works, NOTTINGHAM

WYETH'S BEEF JUICE.

A liquid preparation of the Choicest Beef, containing the Nutritious Albuminous principles in an unaltered and soluble form.

Because WYETH'S BEEF JUICE is Pleasant and Agreeable to the taste.

Possesses five times more nourishing properties than other similar preparations.

Nutrient and stimulant properties so proportioned that it can be retained by the stomach in extreme cases of debility.

Two-ounce bottle contains all the Nutritious Albuminous principles of three pounds of clear lean meat.

Because these and many other points of superiority have been brought to the attention of Medical Men, Nurses, and Hospitals.

Because they have proven the claims *TRUE*, the demand for WYETH'S BEEF JUICE has become constant, and constantly increasing throughout Great Britain.

For the information of the

RETAIL CHEMIST

who has not already stocked WYETH'S BEEF JUICE we make this announcement.

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Most Delicious Sauce in the World. Bottles, 6d., 1s., & 2s. each.

GOODALL'S BAKING POWDER.

The Best in the World. 1d. Packets; 6d., 1s., 2s., and 5s. Tins.

GOODALL'S EGG POWDER.

One 6d. Tin is equal to 25 eggs. In 1d. Packets; 6d., 1s., and 5s. Tins.

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Delicious Custards without Eggs. In Boxes, 2d., 6d., & 1s. each.

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Delicious Blancmange in a Few Minutes. Boxes, 6d. and 1s. each.

GOODALL'S QUININE WINE, B.P.

Best Tonic yet Introduced. Bottles, 6d., 1s., and 2s. each.

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Makes the Best Ginger-Beer. Packets, 3d. and 6d.

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Painting Stoves, Grates, Iron, Tin, &c. 6d. & 1s. Bottles.

GOODALL'S LAVENDER WATER.

Rich and Lasting Perfume. Bottles, 1s., 2s., and 5s. each.

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Polishing and Cleaning all Metals. Boxes, 6d., 1s., and 2s.

GOODALL'S JELLY SQUARES.

Make a Delicious and Nutritious Jelly. In ½-pint, 1-pint, and Quart Boxes, 3d., 6d., and 1s. each.

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AND

DRUGGISTS' SUNDRIES.

Monthly Price List of Patent Medicines, Druggists' Sundries, &c., will be sent post free on application to

GOODALL, BACKHOUSE & CO., LEEDS.

"HEALTH" says:—

"By Far the Best and Purest."

"SOLAZZI."

This is the purest LIQUORICE JUICE obtainable; it is a guaranteed specific—in fact,

NATURE'S OWN REMEDY

—for Winter Coughs, Colds, and all Chest Affections.

Chemists should stock and push this article, as a safe and effective remedy, provided by kindly Nature—in preference to Patent medicines, which, in these days, yield only the barest profit. To be had, with Show Cards and Handbills, of

ALL WHOLESALE HOUSES.

"THE CHEMIST AND DRUGGIST" says:—

"The Most Esteemed of All."

MRS. WINSLOW'S SOOTHING SYRUP

FOR CHILDREN TEETHING,

Greatly facilitates the process of Teething, by softening the gums, reducing all inflammation; will allay ALL PAIN and spasmodic action, and is

SURE TO REGULATE THE BOWELS.

Depend upon it, Mothers, it will give rest to yourselves, and

RELIEF & HEALTH TO YOUR INFANTS.

Mrs. WINSLOW'S SOOTHING SYRUP

Has been used for over Fifty Years by Millions of Mothers for their children while teething with perfect success. It soothes the child, softens the gums, allays all pain, cures wind colic, and is the best remedy for diarrhoea.

BROWN'S BRONCHIAL TROCHES

CURE COUGH, COLD, HOARSENESS, AND INFLUENZA. CURE ANY IRRITATION OR SORENESS OF THE THROAT. RELIEVE THE HACKING COUGH IN CONSUMPTION. RELIEVE BRONCHITIS, ASTHMA, AND CATARRH. CLEAR AND GIVE STRENGTH TO THE VOICE OF SINGERS, AND ARE INDISPENSABLE TO PUBLIC SPEAKERS. SOOTHING AND SIMPLE, CHILDREN CAN USE THEM, AS THEY ASSIST EXPECTORATIONS AND RELIEVE HOARSENESS.

NOTICE.—Brown's Bronchial Troches are guaranteed to contain no Opium or other Poison.

London Office — 33 FARRINGDON ROAD.

THE MEXICAN HAIR RENEWER

Prevents the Hair from Falling Off.

Restores Grey or White Hair to its ORIGINAL COLOUR.

Being delicately perfumed, it leaves no unpleasant odour.

IS NOT a Dye, and therefore does not stain the skin, or even white linen.

Should be in every house where a HAIR RENEWER is needed.

ASK YOUR CHEMIST OR
HAIRDRESSER FOR

THE MEXICAN HAIR RENEWER,

Price 3/6 per Large Bottle. Prepared only by

THE ANGLO-AMERICAN DRUG COMPANY, LIM.

33 FARRINGDON ROAD, LONDON, E.C.

Counter Bills and Show-cards for Mrs. Winslow's Soothing Syrup, Brown's Bronchial Troches, Floriline, and The Mexican Hair Renewer, sent free of charge on application to

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OR

BEEF PEPTONE.

ARMOUR'S PEPSIN.

STRONG POINTS.

SPECIAL

ATTENTION IS
DIRECTED TO

ARMOUR & CO. beg to inform the trade that the demand for this product has been so enormous that they can only accept orders

FOR DELIVERY AS SOON AS POSSIBLE

Until further notice.

It pays every Druggist to use Armour's Pepsin and Preparations, because they enable him to prepare

PEPSIN, P.B. at 11d. per oz.

THE MOST ACTIVE

ACID GLYCERINE OF PEPSIN, at 1/8 per lb.

PEPSIN WINE, P.B. at 1/4 per lb.

PEPSIN TABLETS.

Armour's Pepsin Tablets
for Indigestion.

In neat cases, with attractive labels.

ESSENCE OF PEPSIN.

A powerful Fluid Pepsin of fine flavour. Also useful for Junkets, Curds and Whey, &c.

Both pay a Living Profit, and sell readily at Full Prices.

PEPSIN (a) INSOLUBLE POWDERED

(Non-Hygroscopic).

(b) **SCALE** (Soluble).(c) **SOLUBLE POWDERED.**

Guaranteed Digestive Strength, 1 : 2,500.
AND

PANCREATIN (IN POWDER).

In 1 oz. Bottles 3/6 per oz.
In 1 lb. Tins 32/- per lb.

TABLETS OF PURE PEPSIN

3 GRAINS EACH.

IN FLAT BOTTLES FOR THE POCKET.

Bottles containing 20 tablets .. 8/6 per doz.

" " 75 " or .. 25/- "

In 1 lb. Tins 32/- per lb.

GLYCEROLE PEPSIN

(CONCENTRATED).

10 Minims are the equivalent of 1 Grain
of our Pepsin, possessing a digestive
power of 2,500.

Formula supplied for preparation of Glys.
Acid. Pep.

AND

GLYCEROLE PANCREATIN

(CONCENTRATED).

10 Minims are the equivalent of 1 Grain
of our pure Pancreatin.

In 1 lb. Bottles 6/3 per lb.
" 8 lb. Jugs 32/-

PEPTONISING TABLETS

PURE PANCREATIN .. 21 GRAINS

SODIUM BI-CARBONATE 8 "

Recipes furnished for pre-digesting Milk and
other Foods.

Tubes containing 15 tablets .. 7/6 per doz.
In 1 lb. Tins 10/6 per lb.

ESSENCE PEPSIN

8 oz. Bottles 33/- per doz.

4 oz. " 18/- "

ARMOUR & CO.,

59 & 60 Tooley Street, London, S.E.

Telephone Number, 1852.

Telegraphic Address—CHEMICUS LONDON.

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CLASSIFIED LIST OF ALL ADVERTISERS

Whose Announcements appear in "THE CHEMIST AND DRUGGIST." Those whose Names do not appear in the preceding Index are published in one of the other issues of this month.

ACETIC ACID

Fuerst Bros.
Green, E. W., & Co.
Morris & Oatard (Salts)

ADVERTISING

Baird Clock Co.
Lawton, J. W.
Sears, F. W.

AMMONIA

Apollinaris Co.
Barnett & Foster
Chemists' Agraded WatersAssociation (Lim.)
Siles & Son (Ruthin)
Saessall & Co. | Hay, W.
Hulsen, J., & Co.
Iris & Co.Ingram & Royle
Jewsbury & Brown
Johnnie Spring (Lim.)
Mills & Co. (Bourne)
Schweppe, J., & Co.

ASTHMA CURE

Hicks, J. J. | Ohlson, A.
Orme, J., & Co. (Solentine)
Perken, Son & Rowant
H & Co.

BAKING POWDER

Goodall, Backhouse & Co.
BANDAGES
Bailey, W. H., & Son
Robinson & Sons
Schmitz, F., & Co.
Warne & Co.

BEESWAX

Roehm, F.
Brunner, Mond & Co. (Lim.)
Howards & Sons
H & Co. (Lim.)

BISMUTH PREP.

Hearon, Squire & Francis
Hewlett & Sons
Howards & Sons
May & Baker (Lim.)
Gynes & Co. | Tyrer, T., & Co.
White Alfred, & Sons

BOOKS

Griffiths, W.
Turney & Jackson
Hargreaves, Dr., M.D.
Harschell, Dr. | Muter, Dr.
Whitla, Dr.

BORAX

Howards & Sons
Mack's Starch
BOTTLES
Aire & Calder Bottle Co. (Lim.)
Barnett & Foster
Barradell, J. F., & Co.
Barrett, E. H.
Bratby & Hinchliffe (Lim.)
Bueh, H. W., & Co.
Evans, Sons & Co.
Gilbertson, H., & Sons
Hearn, E. A., & Co.
Isaacs & Jørgensen
Johnsen & Jørgensen
Kilmer Bros.
Pothe, H., & Co.
Sharp Brothers
Shirley, A. W.
Toogood, W.
"W. Brand Bottles"
Youlden, E.

BOXES

Austin & Co. (Cardboard)
Evans, Sons & Co.
Farmer, J. W., & Co. (Lim.)
Robinson & Sons

BRUSHES

Evans, Sons & Co.

BUNSEN BURNERS

Berend & Co.

BUTTER COLS, &c.

Boulton, J. & Co. (Lim.)
Crawshaw & Co.
Hatri & Co. (Lim.)
Digfield, Patinson & Co.

CAMPHOR

Fuerst Bros.
Howards & Sons
May & Baker (Lim.)

CAPSULES

Denoual, J. (Medicinal)
Duncan, Flockhart & Co.
Evans, Sons & Co.
Hooper, B., & Co.

CASA SAGRADA

Lofthouse & Saltmer
Mason, C. E., & Co.
Richardson, John, & Co. (Leicester), Lim.

CASTOR OIL

Anderson & Co.
Duncan, Flockhart & Co.
Evans, Sons & Co.
Ferris & Co.
Moss, J., & Co.

CATALOGUE

Allen & Hanbury (Fuerst Bros)
Christy & Co. (Aromaticum)
Green, E. W., & Co.
The Lofoden Cod Liver Oil Co.
MAY, S., SON & THOMPSON
May, Roberts & Co.
"Sanger & Sons"

CHECK TILLS

National Cash Till Co.
Patent Voucher Check Till Co.
(Lim.)
Stokes, G. R., & Co. (Lim.)

CHLORIDE OF LIME

Government Sanitary Co.
National Chemical Co.
Davenport, (Browne's)
"Coles, J. P. & Son"

CHLOROPHORM, &c.

Duncan, Flockhart & Co.
Green, E. W., & Co.
Macfarlan, J. F., & Son
Salamon & Co. (Lim.)
Smith, T. & H., & Co.
Wright, Layman & Umney
Zimmermann, A. & M.

CHEMICALS

Boehm, F.
Boehring, C. F., & Sohne
Boulton, J., & Co. (Lim.)
Bramwell, E., & Son
Brunner, Mond & Co. (Lim.)
Fletcher Fletcher & Stevenson
Fuerst Bros.
Goodall, Backhouse & Co.
Green, R. W., & Co.
Harrington Bros.
Hill, A. S., & Son
Hodgkinson, Treacher &
Howards & Sons (Pharm.)
Levermore, Ang., & Co.
Lofthouse & Saltmer
Lorenz, H.
May & Baker (Lim.)
Morris & Callard
Moss & Co.
Smith, T. & H., & Co.
Tyrer, T., & Co.
Washington Chemical Co.
White, A., & Sons
Zimmermann, A. & M.

CHEST PROTECTORS

Chemists' Association (Lim.)
Hockin, Wilson & Co.
Liverpool Patent Lint Co.
Lynch & Co.
Newbery, F., & Sons
Pattison, G. | Solport Bros.

CITRIC ACID

Hassall & Co. (Phosphor)
Lytic & Sons
COCOAINE-HYDRO.
Howards & Sons

COCA WINE

Armbricht, Nelson & Co.
French Hygienic Soc.
Stephen Smith & Co. (Hall's)

COCOA & CHOCOLATE

Cadbury Bros. | Christy & Co.
Bowntree & Co.

CHRISTMAS**NOVELTIES**

Smith, Tom
OD-LIVER OIL
Allen & Hanbury
Burroughs, Wellcome & Co.
Evans, Sons & Co.
Greiff, B. W., & Co.
Hill, A. S., & Son
Hockin, Wilson & Co.
Lafontaine & Salsmer
Miller, P.
Smith, T. J.
Robinson & Co.
The Lofodden Cod Liver Oil Co.
Woolley, Sons & Co.

COFFEES

Symington, T., & Co. (Coffee)
(Essence)
White, Fairchild & Co.

COLPSIBLE TUBES

Betts & Co.
COMPANY REGIS-
TRATION AGENTS
Jordan & Sons

COMP. MEDICINES

Allen & Hanbury
Blyton, Astley & Co.
Burroughs, Wellcome & Co.
Fuerst Bros.
Hooper, B., & Co. | Leo & Co.
Leo & Co.

CONCENT. LIQS.

Fletcher, Fletcher & Stevenson
Lloyd, T. H., & Co.
Wood, Cooper & Co.

CONFECTIONERY

Blyton, Astley & Co.
Crawshaw & Co.
Gibson, R., & Sons
Guest, T., & Co.
Pascoli J.
Southwell, C., & Co.
Warrick Brothers

COEN CURES

Pattison, G.
Solport Bros.

COTTON WOOL

Haynes, G., & Co. (Absorbent)
Robinson & Sons (Absorbent)

ORSED LINSSEED

Graham, W., & Co.
Mumford, S. G.

DISINFECTANTS

Bailey's Toilet Co.
Beecham, T.
Bronley, H., & Co.
Jewebury & Brown
Lakeman, J. J.
Quelch, H. C.
Spurrin, R. C. (Dorothy)
Stevens, P. A.
Sutton, C., & Co.
Thompson & Capper
Warrick Bros. | Wileon, A.
Wood, W. (Aroca Nut)

DISINFECTANTS

Calvert, F. C., & Co.
Dusser Bros., & Co.
Fletcher Bros., & Co.
Government Sanitary Co.
Grindley & Co. (Lim.)
Jeyes' Fluid
Mason, O. E., & Co.
May & Baker (Lim.)
National Chemical Co.
Sanitas Co.
Seabury & Johnson
Star Chemical Co.
Tyrer, Thos., & Co.

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Sanitas Co.
Seabury & Johnson
Star Chemical Co.
Tyrer, Thos., & Co.

EMEROCATION

Biggs, T.
Barr, H.
Day & Sons
Hillman, Sons & Co.

ENEMAS

Evans, Sons & Co.
Sanger & Son
Varnes & Co.

ENGRAVERS

Barker, W., & Son
Oorsan, J. R.

ESSENCES

Beckett, W.
Berker, F.
Boehm, F.
Boulton, J., & Co.
Bratby & Hinchliffe (Lim.)
Burgoyne, Burdighes & Co.
Bush, W. J., & Co.
Fletcher, Fletcher & Stevenson
Goodall, Backhouse & Co.
Hay, W. Co.
Laris & Co.
May & Baker (Lim.)
Newball & Mason
Oldfield, Pattinson & Co.
Stevenson & Howell
Tyrer, P. (Anchovies)
Tyrer, P. & Co.
Woolley, Sons & Co.

ESSENTIAL OILS

Berger, F.
Boehm, F.
Bush, W. J., & Co.
Chiris, O.
Clay, Dod & Co.
Cooking & Co. (Japan Pepper-mints)
Dodge & Cleot
Evans, Sons & Co.
Hodgkinson, Treasher & Clarke
Lewis, M.
May & Baker (Lim.)
Robert Freres
Sotio & Andrioli
Schlesinger, J.
Stevenson & Howell
Symes & Co.
Tombarel Freres
Treath, R. O.
Vost, G., & Co.
Warrick Bros.
Witrofsky, E.
Wright, Layman & Umney

ETHER

Duncan, Flockhart & Co.
Howards & Sons
May & Baker (Lim.)
Robins, J., & Co.
Tyrer, T., & Co.
White, A., & Sons
Woolley, Sons & Co.
Wright, Layman & Umney

EUCALYPTUS

Bickford, J. Bosisto's
Downie, B. I. P. Co.
Drysdale, J. W. & Co.
Evans, Lescher & Webb
Fletcher, Fletcher & Stevenson
Grimwade, Ridley & Co.
Laughland, Mackay & Baker
Murdock, J., & Co.
Tasmanian Eucalyptus Oil
Vost, G., & Co.

EXALGIWE

Kuhn, B.

EXTRACT MEAT

Brand & Co.
Bush's Liquid Beef
Denessey's Peptone and Ex-
tract of Meat Co. (Lim.)
Idris & Co. (Viking Co.)
Liebig Co.
Liquor Carnis Co. (Lim.)
Mason, G., & Co. (Lim.)
Wroth & Brocher

EXTRACTS, FLUID

Allen & Hanbury
Anderson & Co.
Barber, G., & Co.
Burgoyne, Burdighes & Co.
Evans, Sons & Co.
Fletcher, Fletcher & Stevenson
Hearon, Squire & Francis
Hooper, B., & Co.
Lloyd, T., Howard & Co.
Mason & Co.
Potter & Clarke
Vost, G., & Co.
Wright, Layman & Umney

FEEDING BOTTLES

Burroughs, Wellcome & Co.
(Thermo Safe)
Chemists' Association (Lim.)
Evans, Sons & Co.
Hearn, E. A., & Co.
Hockin, Wilson & Co.
Kilner Bros.
Lyne & Co.
Marriott, E., & Co.
May, Roberts & Co.
Maw, S. Son & Thompson
Spence & Co.

FILTERING

Berkfeld Filter Co.
Fordham, W. B., & Sons (Ld.)
Mawson, Swan & Weddell
Rilicard Carbon Filter Co.
Pattison, G.

FLY PAPERS

Ford, Shapland & Co.
Mather, W.
Maw, S. Son & Thompson
Murdock, J., & Co.
Wright, Layman & Umney

FORMULA

Brooks, T.

FOOD (Infants & Invalids)

Allen & Hanbury
Benger's Food | Brand & Co.
Clarke's Fairy Light Co.
(Lim.) (Warner)
Evans, Sons & Co.
Goodall, Backhouse & Co.
Hearon, Squire & Francis
Idris & Co.

GINSENG

King, F., & Co. (Lim.)
Liebig Co.
Liquor Carnis Co. (Lim.)
Mason & Co. (Lim.)
Nestlé, H.

GLYCERINE

Hay, W. (Essence)
Mills, R. M., & Co.
Hearon, Squire & Francis
Boehm, F., & Co.
Fuerst Bros.
Greiff, B. W., & Co.
Lynch & Co.
Price's Candile Co.
The Lofodden Cod Liver Oil Co.

GOUT AND RHEU-

MATIC PILLS
Bromley, C.

GRANULAR PREP.

Bishop, A., & Sons
Evans, Sons & Co.
Hearon, Squire & Francis
Lloyd, T. H., & Co.
Wright, Layman & Umney

GRIP WATER

Woodward, W.
Pink & Co. (Arabic, &c.)
Greiff, B. W., & Co.
Levermore, Aug., & Co.

HAIR PREP.

Anglo-American Drug Co.
(Lim.)
Chesbrough Mfg. Co.
Edwards & Co.
Treath, H. P. (Lim.)

HERB EXTRACTS

Newball & Mason
Oldfield, Pattinson & Co.
Potter & Clarke
Symes & Co.

HERB BEER BITS

Newball & Mason
Oldfield, Pattinson & Co.
Potter & Clarke
Symes & Co.

HOMEOPATHIC

Keene & Ashwell
Leath & Ross
Thompson & Capper
Watson & Water

HYPOPHOSPHITES

Duncan, Flockhart & Co.
Fellow, J. & Co.
Fletcher, Fletcher & Co.
Symes & Co.
Tyrer, Thomas, & Co.

INDIANUR. GOODS

Warne, W., & Co.
Burgoyne, Burdighes & Co.
Hearon, Squire & Francis
Lynch & Co. (Lim.)
Spence, O., The
Toogood, W.

INKS [SEE MARKING INKS]

Keating, T. | Steiner & Co.
London and Lancashire Fire
Insurance Co.

INSURANCE

Keating, T. | Steiner & Co.
London and Lancashire Fire
Insurance Co.

KETCHUP

Tyrer, P.
Kola Preprints
Christy, T., & Co.

LARD

Ewen, J., & Sons
Lime Juice
Southwell, C., & Co.

LINT

Liverpool Lint Co.
Newsoms, O.
Robinson & Sons
Seabury & Johnson
Ferguson & Forster (Solazzi)

LITHIA

Fuerst Bros.

MALT EXTRACT, &c.

Allen & Hanbury
Anderson & Co.
Barroughs, Wellcome & Co.
(Kepler's)
Hearon, Squire & Francis
Robinson & Co.
The Lofodden Cod Liver Oil Co.
Wyleys & Co.

MANICURE PREP.

Dr. Paul's
MEAT JUICE
Brand & Co.

MEDICINE CHESTS

Burroughs, Wellcome & Co.
D. Hastings & Co. (Pastilles)
Day & Sons (Veterinary)
Hearon, Squire & Francis
Hockin, Wilson & Co.
Seabury & Johnson
Tyrer, P.

MERCURIALS

Parrot Brothers
Evans, Sons & Co.
Hearon, Squire & Francis
Hockin, Wilson & Co.
Seabury & Johnson
Tyrer, P.

METH. SPIRITS, &c.

Boord & Son | Burroughs, J.
Harvey, J. W., & Co.
Jones, O.
Phillips, G., & Co.
Smith, S., & Co.

METHYLENE

Robbins, J., & Co.
MICROSCOPES
Anderson & Co.
Barron, Harvey & Co.
Battley & Watte
Berger, F. | Boehm, F.
Boehring, O. P., & Sons
Boulton, J. J., & Co. (Lim.)
Burgoyne, Burdighes & Co.
Burroughs, Wellcome & Co.
Chassaigne & Co.
Delacroix, Ch., & Co.
Dunlop, F. | Lockhart & Co.
Farris & Co.
Fletcher, Fletcher & Co.
Giles Schacht & Co.
Greiff, B. W., & Co.
Hearon, Squire & Francis
Hewlett & Son
Howards & Sons
Jeyes Sanitary Compounds Co.
Keith & Co., Jun. | Tincture
Kingsford & Co.
Lambert Pharmacol. Co.
Largen, G. W.
Learnmount, W. D. ("Nep-
tulin")
May & Baker (Lim.)
Moss, J., & Co.
Oppenheimer, Son & Co. (Lim.)
Potter & Clarke
Richardson, John, & Co. | Le-
icester, Lim.
Riebles & Co. | Roberts & Co.
Smith & Sons
Smith, T. H., & Co.
Southall Bros. & Barclay
Sutton, W., & Co.
Symes & Co.
Tyrer, T., & Co.
White, Alfred, & Sons
Woolley, Sons & Co.
Wright, Layman & Umney

MILK

Nestlé, H. (Condensed)

MORPHIA

Macfarlan, J. F., & Co.
Smith, T. H., & Co.

NIGHT LIGHTS

Clarke's Fairy Light Co. (Ld.)
OLS. PAINTS, &c.
Fleming, A. B., & Co. (Lim.)
Fox, W., & Sons
Fitch, Johnson & Co.
OXALIMENT BASES
Burgess, E., Jun.
Burroughs, Wellcome & Co.
(Lanoline)
Chesbrough (Vaseline)
Duncan, H. J. | Burgess
Grindley & Co. (Petroleum
Jelly)
Lloyd, T. H., & Co.
Richardson, J., & Co. | Leices-
ter (Lim.) (Anaspalline)
OPTICIANS
Botwright & Gray
Dartton, F., & Co.
Perken, Son & Raymond
OTTO OF ROSE
Fuerst Bros.
Shibut, T. | Treath, B. O.

PETROLEUM

Allen & Hanbury
Barclay & Sons (Lim.)
Dee Oil Co. (Lim.)
Fuerst Bros. (Jelly)
Grindley & Co. (Jelly)
Hartick & Co. (Lim.)

PAPAIN

Kuhn B. (Dr. Finkler)
PATENT AGENTS
Horn & Son
PATENT MEDICNS
Anglo-American Drug Co.
(Lim.)
Atkinson & Barber (Infant
Preserv)
Barclay & Sons (Lim.)
Beecham, T. (Pills)
Bow's, Dr. Liniment
Bromley, O. (Gout and Rheu.)
Chemists' Association
Clarke's Blood Mixture
Edwards & Son
Evans, Lescher & Webb
Fennings' (Powders)
Goodall, Backhouse & Co.
Guy's Tonic
Haskins Cream (A.P. Bush & Co.)
Holloway (Pills and Oint.)
Hovenden & Sons
Kreat Haliva
Lalor, Robert, & Co. (Phos-
phodyne, &c.)
May, Roberts & Co.
Morison's Ointment
Newbery & Sons
Roberts & Co. (Foreign)
Schiffman, R.
Seaguh (Lim.)
Sutton, W., & Co.
Wilson, A. | Bunter's Nerveine
Zilzlimab

PERSENE, &c.

Allen & Hanbury
Burroughs, Wellcome & Co.
Chassaigne & Co.
Fletcher, Fletcher & Stevenson
Greiff, B. W., & Co.
Kuhn, B.
Newbery, F. & Sons (Inglavin)
Stern, G. & G.
Warner & Co. (Inglavin)

PEPPERMINT OIL

Bush, W. J., & Co.
Cooking & Co.
Stevenson & Howell

PERFUMERY, FANCY SOAPS

Barclay & Sons, Lim.
Bayer & Co. | Beaullette Co.
Bleasdale & Co.
Blondeau & Co. | Boehm, F.
Brooks, T. (Solid Perfum.)
Burroughs, Wellcome & Co.
Bush, W., & Co.
Cavallier Freres
Chemists' Association (Lim.)
Chesbrough Manufacturing Co.
Chris, A.
Evans, Sons & Co.
Ewen, J., & Sons
Farina, J. M.
Giraud Fils
Grossmith, J., & Sons
Hovenden & Sons
Mullens, F.
Newbery & Sons (Bardosa)
Offinger, E.
Pears' Soap (Lim.)
Price's Patent Vaseline Co.
Robert Freres
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Per Small Stoppered
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Per 1,000,
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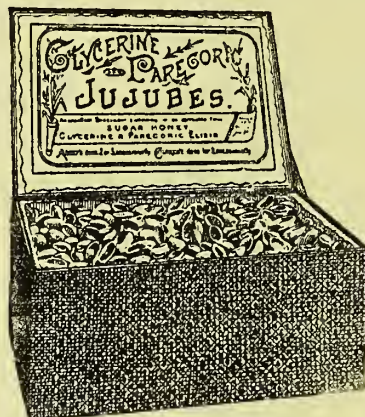
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These "Tabloids" equal 1-1000 gr. of the copper salt and have been issued with the view of affording a ready and reliable means of prescribing this remedy, which has been so highly recommended in cases of Cholera Morbus, Cholera Nostras, and Cholera Infantum. Dysentery, Diarrhoea, and in Typhoid. The dose is thus attenuated to enable the physician the more safely to prescribe small and frequent doses, the frequency and regularity of administration being essential conditions to success. Supplied to the Trade in bottles of 100 at 7s. 6d. per doz.

THE SPECIAL PEPTONIC "TABLOIDS."

Consist of an inner kernel, containing 1 gr. each of Pancreatic Extract (Zymine) and Calcium Lactophosphate, coated with Keratin.

Aconite Tinct., 1 and 5 min.
Aloin, 1/10 gr.
* Aloin Compound—Anti-Constitution (Aloin 1/5 gr.; Belladonna Ext., 1/8 gr.; Strych., 1/60 gr.; Ipecac., 1/16 gr.)
Ammon. Bromide, 5 and 10 gr.
Ammon. Chloride, 3, 5 and 10 gr.
Ammon. Chloride with Borax.
Antacid (Calcium Carb. Precip., 33 gr.; Magnes. Carb., 23 gr.; Sodium Chloride, 1 gr.)
Antifebrin, 2 gr.
Antimony Tartrate, 1/50 gr.
Antipyrin, 5 gr.
Apomorphia Mur., 1/50 gr.
Arsenious Acid, 1/100 and 1/50 gr.
Atropia Sulph., 1/100 gr.
Belladonna Tinct., 1, 5, and 15 min.
Bismuth Subnitrate, 5 and 10 gr.
Bismuth and Soda, 5 gr. (each).
Blaud's Pill, 4 gr.
Blue Pill, 3 gr.
Borax, 5 gr.
Caffine Citrate, 2 gr.
* Calcium Sulph. (plain and sugar-coated) 1/10 gr.
Calomel, 1 and 1 gr.
Camphor, Comp. Tinct. (Paregoric), 5 and 15 min.
Cannabis Indica Tinct., 3 min.
Capsicum Tinct., 1 min.
* Cascara Sagrada Ext., 2 gr.
* Cascara Comp. (Cascara Dry Ext., 1 gr.; Eucalyptus Pulv., 1 gr.; Hyoscyamus Dry Ext., 1/3 gr.; Nux Vomica Ext., 1/16 gr.; Strych., 1/60 gr.)
* Cathartic Comp. U.S.P., plain and sugar-coated (Ext. Coloc. Co. Pulv., 1/3 gr.; Ext. Jalape Pulv., 1 gr.; Hyd. Subchlor., 1 gr.; Canbogue Pulv., 1 gr.)
Charcoal (Pure Willow), 5 gr.
Chloralamid, 5 gr.
Chl. Hydride, 5 and 10 gr.
Cinch. Co. Tr., 30 min.
" Simp. Tr., 30 min.
Cocaine, 1 gr. [(see Elix.)]
Cocaine, with Potash and Borax
Copper Arsenite, 1/100 gr.
Creta Aromatic. cum Opio Pulv., 5 gr. (Aromatic Confection with Opium).

Cubeb. Belladonna Effervest.
Cubeb., Comp. (Cubeb. Pulv., 2 gr.; Ammon. Chlor., 1/2 gr.; Ext. Glycyrrh.), 10 min.
Dilysed Iron, 10 min.
Digitalis Tinct., 1 min.
Ditalin, 1/100 gr.
Diuretin—Knoll's, 5 gr.
Dover Powder (see Ipecac. and Opium).
Ergotin (sugar-coated), 3 gr.
Euonymin Resin, 1/8 gr.
Euxalin, 2 gr.
Ferrum Redact. (see Reduced Iron).
Gelsen. Semp. Tr., 5 min.
Guaiacum and Sulphur, aa 3 gr.
Hydrarg. cum Creta, 1 and 1 gr.
Hydrarg. cum Creta, 1 gr.; with Dover Powder, 1 gr.
Hydrarg. Iod. Tinct., 1/20 gr.
Hydrarg. Iod. Vir. Proto-Iodide of Mercury, 1/8 gr.
Hydrarg. Perchlor., 1/100 gr.
Hydrarg. Subchlor., 1/10 gr. (see also Calomel, 1 gr.)
* Hydrastia Comp. (Hydrastia Mur., 1/2 gr.; Ergotin, 1 gr.; Canbogue Tinct., 1 gr.)
Hydroxaphthol, 3 gr.
Hyoscyam. Tr., 10 min.
* Ichthyol, 24 gr.
Ipecac. and Opium, 1/5 gr. (Dover Powder).
Ipecac. Powder, 1/10 and 5 gr.
Ipecac. Pulv. Co. cum Antim. Tart., aa 1/100 gr.
Iron and Arsenic Comp. (Quinine Bisulph., 1 gr.; Iron Hypophosph., 2 gr.; Arsenic, Strychiana Sulph., aa 1/50 gr.)
* Iron and Quinine Cit. (plain and sugar-coated), 3 gr.
* Laxative Vegetable, plain and sugar-coated (Res. Podoph., Ext. Hyoscy., Ext. Tarax., aa 1/4 gr.; Ext. Coloc. Pulv., 1 gr.; Ext. Jalape Pulv., 1 gr.; Res. Leptand., aa 1/2 gr. Ol. Menth. Pip.).
Lithia Carbonate, 2 gr.
* Lithia Comp. (Lithia Benzoas, 3 gr.; Sulphur Precip., 2 gr.; Quin. Salicyl., 1/3 gr.). Dr. Hugh Laue's formula.

This is, again, covered with a layer of (1 gr.) Pepsin, and the whole then coated with pure white sugar. This allows of the pepsin being dissolved in the gastric juices of the stomach; while the keratin-protected kernel remains undissolved and passes into the alkaline solution in the intestine canal. Supplied to the Trade in bottles of 25 and 100 at 14s. and 48s. per doz.

BLAUD'S PILL "TABLOID."

These "Tabloids" represent each 4 grs. of the Pil. Blaud. That the iron in these "Tabloids" is still in a unoxidised form can easily be demonstrated by dropping one into water, whereupon the green ferrous carbonate will at once be developed. Where iron in this form is admissible, such as in Chlorosis, Anæmia, and Functional Disorders, these Blaud's Pill "Tabloids" will be found to answer admirably. Supplied to the Trade in bottles of 25 and 100, at 8s. 6d. and 18s. per doz.

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May be had keratin-covered or beautifully coated with pure white sugar, containing 2½ grs. of Ichthyol. The somewhat disagreeable odour of this valuable drug is completely masked in these "Tabloids," which are certainly the most presentable form yet offered to the Medical Profession in which to prescribe Ichthyol for internal use. Supplied to the Trade in bottles of 24 and 100, at 7s. 6d. and 24s. per doz.

DIALYSED IRON "TABLOIDS."

Each of these "Tabloids" equals 10 minims of the pure neutral solution of Peroxide of Iron in the colloid form. To produce a thoroughly satisfactory "Tabloid" answering exactly to the character of the solution on being added to water has been a task of considerable difficulty, and we invite the attention of the Profession to these "Tabloids," which in those cases where the solution of Dialysed Iron is indicated, can be prescribed with confidence. Pure Dialysed Iron does not constipate and does not injure the teeth. Supplied to the Trade in bottles of 50, at 8s. 6d. per doz.

Magnes. Comp. Carb. (antacid.)
Pot. bicarb., 2 gr.; Sodii bicarb., 2 gr.; Magnes. Carb. Lewis, 2 gr.; Sodii Chlorid., 3 gr.
Manganese Dioxide, 2 gr.
Morphine Sulph., 1/20 and 1/8 gr.
Nas. I., Alkaline (Borax, 5 gr.; Soda Chlor., 5 gr., effervescent).
Nasal, Antiseptic and Alkaline (Soda Bic., 5 gr.; Acid. Carbonic, 1/2 gr.; Borax, 5 gr.).
Naso-pharyngeal (Sodium Chlorid., Borax, Boric Acid, Benzoic Acid, Menthol, Thymol, Cocaine Mur., Ol. Gaultheriz., Dr. Macnaughton Jones' formula).
Nitroglycerine, 1/100 gr. (see also Trinitrine).
Nux Vomica Tinct., 1, 3, & 10 min.
Opium Tinct., 2, 5, and 10 min.
Opium, 1 gr.
Pancreatin (see Zymine "Tabloids").
Papain, 5 gr. (Dr. Finkler & Co.).
Pepsin (Fairchild).
Pepsin, Saccharated, 5 gr.
Peptonic, 3 gr. (Pepsin, Pancreatin, Lactophosph. Lime, p. av.).
* Peptonic (new improved), (Zymine, 1 gr.; Calcium Lactophosphate, 1 gr., coated with Keratin. Pepsin Pure (Fairchild), 1 gr. as then added, and the complete "Tabloid" coated with pure white sugar).
Phenacetin, 5 gr.
Pilocarpin Mur., 1/20 gr.
Podophyllin Resin, 1/4 gr.
Potass. Bicarb., 5 gr.
Potass. Bromide, 5 and 10 gr.
Potass. Chlorate, 5 gr.
Potass. Chlorate with Borax.
Potass. Iodide, 5 gr.
Potass. Nit. (Sal. Prunella), 5 gr.
Potass. Permanganate, 1 and 2 gr.
* Quinine Bisulphate, 1 and 1 gr.
* Quinine (Bisulph.), 1, 2, 3, and 5 gr.
Quinine Sulphate, plain and sugar-coated, same strengths, sizes, and prices as Quinine Bisulphate.
Reduced Iron, 2 gr.

Resorcin, 3 gr.
Rhubarb Comp. (Pil.), 3 gr. (Rhei Pulv., 1 pt.; Aloes Soc. Pulv., 1 pt.; Saponis Pulv., 5/8 pt.; Morrhæa Pulv., 5/8 pt.; Ol. Menth. Pip.).
Rhubarb Comp. Pulv. (Grossory Powd.), 5 gr.
Rhubarb and Soda, 5 gr. Rhei 3 gr.; Soda, 2 gr.; Zingiber, 1/2 gr.)
Rhubarb, 3 gr.
Saccharin, 5 gr.
Salicin, 5 gr.
Salol, 5 gr.
Santonin, 5 gr.
Soda Bicarbonate, 5 gr.
Soda Dithio-salicylate, 5 gr.
Soda-Mint or Neutralising "Tabloids" (Soda Bicarb., 4 gr.; Ammon. Carb., 1 gr.; Ol. Menth. Pip.).
Soda Salicylate, 5 and 5 gr.
Stomachic Comp. (Infusion Gentian Co., 2 fl. dr.; Infusion Rhei, 2 fl. dr.; Soda Bic., 5 gr.; Ol. Menth. Pip., 1/2 gtt.).
Strophanthus (2 minims of Tinct. Sulphonal, 5 gr. (each).
Sulphur Comp. (Sulph. Precip., 5 gr.; Potass. Bitart., 1 gr.). Sir A. Garrod's formula.
Tannin, 2 gr.
Tar, 1 gr.
Test Tabloids (for prep. Fehling's Thirst. [Sol.].
"Tincture Tabloids"
Tonic Comp. (Iron Euphoros, 2 gr.; Quinine, 1 gr.; Strych., 1/100 gr.)
Trinitrine (Nitroglycerine, 1/100 and 1/50 gr.)
Trinitrine and Amyl Nitrite.
Trinitrine Comp. (Trinitrine, 1/100 gr.; Nitrite of Amyl, 1/2 gr.; Capsicum, 1/50 gr.; Menthol, 1/5 gr.)
Urethane, 5 gr.
Voice (Potass. Borax, aa 24 gr. and Cocaine, 1 gr.)
Warburg Tincture, 30 min. in each.
Zinc Sulphate, 1 and 10 gr.
Zinc Sulpho-carbolate, 2 gr.
Zinc Sulph. Port. Tinct., 5 min.
Zymine (Fairchild).
Zymine Comp. (Fairchild) Zymine, 2 gr.; Bismuth Subnit., 3 gr.; Pulv. Ipecac., 1/10 gr.)

Those "Tabloids" marked with an asterisk are coated with a perfectly soluble coating of pure white sugar. These coated "Tabloids" will only be dispensed by chemists when specially indicated by the physician.

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AS AN OFFICIAL JOURNAL

THE CHEMIST AND DRUGGIST is supplied regularly to every member of the following Societies:—PHARMACEUTICAL SOCIETY OF IRELAND, SOUTH AFRICAN PHARMACEUTICAL ASSOCIATION, MIDLAND PHARMACEUTICAL ASSOCIATION OF NEW ZEALAND, CENTRAL ASSOCIATION OF NEW ZEALAND, OTAGO PHARMACEUTICAL ASSOCIATION, PHARMACEUTICAL SOCIETY OF QUEENSLAND, PHARMACEUTICAL SOCIETY OF SOUTH AUSTRALIA, and TASMANIAN PHARMACEUTICAL SOCIETY.

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A NEW YEAR'S SUGGESTION.

THERE are four Saturdays in the first month of 1893. On the fourth of these—viz., January 28—THE CHEMIST AND DRUGGIST will come out in a most attractive style, and will be of unusual interest. It will contain new—i.e., original—literary matter, and new advertisements in a new and original cover. It will be sent to new subscribers as well as old ones, and the pick of buyers of drugs and druggists' goods in the world—altogether 11,000. The Publisher aims to make this in every respect a record number, and he therefore wishes the attention of advertisers to be called to the fact that

CIRCULARS AND PRICE-LISTS

can be received for and stitched with this number—we call it our 1893 WINTER ISSUE. Advertising firms are requested to note that circulars distributed to the trade in this way are sure of careful preservation, while the cost of distribution is far less than that of postage alone, not to mention the saving of clerical labour. The best people see the circulars, and good business follows—that is the point. For full particulars apply to the Publisher at once.

Summary.

THIS number is the first of our 42nd volume.

THE late Mr. Barker, of Savory & Moore, has left a fortune of 49,000*l*.

WE print the questions given at the Irish Preliminary examination on Tuesday.

THE men charged with the theft of Condy's fluid have been committed for trial.

SOME of the dispensing notes which we print this week leave room for further comment by dispensers.

WE learn that the failures at the January meeting of the English Board of Examiners have again been heavy.

MR. GRIERSON communicates a letter in regard to the sale of spent ginger for grinding, and in reference to the quality of powdered drugs generally.

THERE is a paragraph in regard to this month's post-card competition on page 14. We want to get for publication an interesting collection of trade anecdotes.

INQUIRIES which we have made show that the supply eucalyptus oil is greater than the demand, a large number of distillers having commenced work in Victoria.

OWING to a dense fog which enveloped the City of London in darkness on Wednesday drug samples could not be inspected, and the sales were accordingly postponed for a day.

A REPORT by the Vichy chemists regarding the presence of microbes in Vichy water is referred to by our Paris correspondent. It confirms what we said on this matter last week.

MR. DOHERTY, of Sydney, a Government chemist, sends us a letter in which he takes exception to the views expressed by Sir George Buchanan and Dr. Thresh regarding water-analysis.

MR. BLORE, a Manchester chemist, seeks compensation for disturbance arising from contemplated municipal improvements, and his claim is the subject of an arbitration reported this week.

THE interesting case at Sligo against two firms of grocers who are alleged to have illegally sold Fellows's syrup is gradually getting itself heard. We report a further stage of the proceedings.

MR. MCGRATH, in a practical communication, explains some of the troubles which attend the use of caramel in aerated waters, shows the necessity for the best quality of sugar, and how to make a good colouring.

IT has been decided in Montreal that the sale of poisons by photographic chemists is of the nature of wholesale transactions, and, therefore, exempt from the retail regulations of the Quebec Pharmacy Act, which is modelled on the British one.

THE *British Medical Journal*, in reviewing our "Pharmacy and Poison Laws," freely criticises the manner in which these laws have been administered, and calls upon chemists to be more observant of their legal obligations. We comment upon the matter.

MR. RICHARD SEYD'S statistics of failures in 1892 show that the gross total was considerably higher than in recent years. Chemists and wholesale druggists have a rather worse record than for the two past years, but this amounts to scarcely over the half of 1 per cent. of the drug businesses in the United Kingdom.

AN important judgment has been given in New Zealand under the Customs laws. An Auckland firm imported some English proprietary pills in bulk, and these were invoiced and duty was paid on them at the commercial value, 4s. per lb. The Customs said they should have been valued as proprietary medicines, and duty on the higher rate paid. They prosecuted, and obtained judgment for treble value of the pills imported, 1,960*l*. This judgment has now been reversed by a majority of the Wellington Court of Appeal. The case is likely to be brought before the Privy Council.

English News.

The Editor is obliged to correspondents who send local newspapers containing items of interest to the trade. He will be further obliged if such paragraphs be marked in all cases.

The Value of a Manchester Drug-business.—Arbitration Proceedings.

The Manchester Corporation are at present engaged in extensive operations under the Labourers' Dwellings Scheme. In various quarters of the city insanitary dwellings are to be pulled down, and in the future—the remote future, as many ardent sanitary reformers seem inclined to think—it is intended to erect houses up to date from a sanitary point of view and otherwise. Long and costly arbitration proceedings are a necessary preliminary. One case, heard last Friday and Saturday, was of interest to chemists. The Arbitrator (Mr. Lumley Smith) had to deal with a property at 46 Oldham Road, owned by Mr. Henry Lessey Blore, wholesale and retail chemist and druggist. It is not alleged that the property is insanitary or dilapidated, but it has been included in the scheme because, in the opinion of the Corporation, it is necessary that it shall be pulled down in order to make an effective area. Dr. Pankhurst appeared for the Corporation, and the owner of the property was represented by Mr. Ambrose, Q.C., M.P.

Mr. Ambrose said the property consisted of the shop, which was an old-established place of business, and of a very useful warehouse. Mr. Blore did not himself take part in the business—that of a chemist—but had a manager to whom he paid a salary of 200*l.* a year. He submitted, from figures which had been agreed upon on both sides, that the business paid 400*l.* a year after allowing for a rental, which was placed at 140*l.* a year. This was on a capital of about 1,000*l.*, which was on the average employed in the business. The property was well situated, close to Shudehill Market, and within half a mile of the centre of the city.

According to the figures referred to by Mr. Ambrose, which were handed to the Arbitrator, the manager has been receiving 4*l.* a week out of the business; while Mr. Blore, who lives at Blackpool, has drawn 904*l.* 16*s.* 1*d.* from the business during the past five years, and has also drawn out, for the purpose of paying interest on mortgages, a further sum of 456*l.* 9*s.* 9*d.*, making total gross profits drawn out of the business in five years 1,621*l.* 1*s.* 3*d.* The rent was estimated at 140*l.* a year, adding another 700*l.* for the five years.

One of the witnesses called on behalf of the owner of the property was Mr. William Campbell, the manager of the business. He stated that he had been manager for twelve years, and had been in Mr. Blore's employment for twenty-six years. There was a grocery business attached to the premises. The property, to the best of his recollection, was purchased twenty or twenty-two years ago. At that time it was carried on by Jonathan Brown & Co., and under that style it was still conducted. Out of the back part of the premises Mr. Blore built a warehouse at a cost of 1,600*l.* or 1,800*l.* In cross-examination by Dr. Pankhurst, witness submitted figures agreed upon between the parties, which showed that the turnover in 1886 was 2,786*l.*; in 1887, 2,715*l.*; in 1888, 2,608*l.*; in 1889, 2,525*l.*; in 1890, 3,152*l.*; in 1891, 2,812*l.*; and in 1892, 2,256*l.* Dr. Pankhurst pointed out that there was a large falling off in the past two years.

Mr. James Murgatroyd, architect, valued the property at 3,388*l.*, including the trade fixtures, which the Arbitrator pointed out were not the subject of valuation, as they could be sold; Mr. Robert Bridgford, estate agent, valued it at 3,407*l.*; and Mr. W. Wilson, auctioneer, gave his valuation at 3,471*l.*

Dr. Pankhurst, for the Corporation, submitted that Mr. Blore's warehouse was more than sufficient for the business carried on. The profits of the establishment were 184*l.* per annum. The Arbitrator would scarcely take the rent at such a sum as 140*l.* per year. He would allow the contention of Mr. Ambrose that 10 per cent. should be given the claimant for compulsory purchase.

Mr. G. H. Larnuth and Mr. Royle, both estate agents and valuers, thought 100*l.* would be a fair rent. They estimated

the value at 1,756*l.*, and with the 10 per cent. in addition, 1,931*l.* Trade compensation, they thought, should be a year and a half's purchase, 336*l.*, bringing the total to 2,267*l.*

A number of other witnesses were examined.

The Arbitrator said his award would be issued in due course.

Theft of Condy's Fluid.

At the Clerkenwell Police Court, Wm. Brown, packer, formerly in the employ of Messrs. Condy & Mitchell, and John Dare, grocer and oilman, were again brought up on remand for final examination on charges of stealing and receiving large quantities of Condy's fluid. [We have reported the case in its several stages.] The prisoners, who reserved their defence, were committed for trial at the next Sessions of the Central Criminal Court.

The Holborn Guardians and their Dispenser.

At the meeting of the Holborn Board of Guardians on Wednesday (Mr. B. Garrod in the chair), the Clerk read the following letter in reply to one the Guardians had sent requesting an increase of salary for their dispenser at the central offices (Mr. H. H. Hewitt):—

Local Government Board, Whitehall, Jan. 2, 1893.

I am directed by the Local Government Board to acknowledge receipt of your letter of December 5 with reference to the proposal of the Guardians of the Holborn Union to increase the salary of Mr. H. H. Hewitt, assistant dispenser, from 100*l.* to 125*l.* per annum. The Board observe, from the medical arrangements return for the year 1891, that Mr. Knowles, the dispenser, and Mr. Hewitt, are both employed during the same hours at the one dispensary. As, however, you state that the Guardians are of opinion that Mr. Hewitt can no longer be regarded as an assistant dispenser, the Board request to be informed as to the exact apportionment of times and duties between the two. I am to add that article 12 of the Dispensaries Order contemplates the appointment of one dispenser only for each dispensary, and the Board could not countenance any arrangement involving divided responsibility.—S. B. PROVIS, Assistant Secretary.

The Clerk (Mr. J. W. Hill) said there had been a misunderstanding. The fact was Mr. Hewitt's father had been dispenser at City Road, and retired. Then Mr. Strachan, his assistant, went. Mr. Knowles was still in the employ; and, though Mr. Hewitt, the present dispenser, did the work of his father, he was never properly appointed by the Guardians, though he was recognised as one of the chief dispensers. On the motion of Mr. Boulton, seconded by Mr. Langley, this explanation was ordered to be forwarded. Mr. Hedley, chief officer of the Local Government Board, was present at the meeting.

Poisoning Cases.

John Clough Hardman Dickinson, aged 29, a medical practitioner at 117 Bow Road, London, and medical officer to the Stepney Union, was found dead in bed on Friday of last week. By the side of the bed was a bottle, which smelt of carbolic acid, and a hypodermic syringe. Deceased's brother said he had suffered lately from insomnia, and was also depressed because he thought he had made a bad bargain lately in exchanging practices. A neighbouring doctor said the brain was congested, but there was nothing else to show the cause of death. The Coroner (Mr. Macdonald) said the deceased's life was insured for 1,000*l.*, and it was very desirable that a definite cause of death should be ascertained. The inquiry was adjourned for a month.

An inquest was held at Liverpool on Saturday last respecting the death of Maria Cooke, aged 49, wife of a picture-hanger, who in a fit of depression had had recourse to the carbolic-acid bottle. She was described as "a fairly steady woman."

Took the Liniment by Mistake.

Sarah Atkins, wife of a nailmaker at Burntwood, Staffordshire, 71 years of age, was suffering from sciatica. Her daughter got for her a bottle of liniment and a bottle of physic. She took a dose from the liniment-bottle and died.

The Collector and the Chemist.

Mr. George Long Cobden, an elderly man, who represented himself to be connected with the Gas and Water League, as reported last week, called on Mr. Sidney Klosz, chemist, 19 King's Road, Chelsea, and obtained his signature in favour of the objects of the Association, and a contribu-

tion of 1s., was again brought up at the Westminster Police Court this week. The police suggested that this Gas and Water League had got no farther than the collecting process, though this had been going on for ten years, and that no Parliamentary action had been taken. Mr. Baker, for the defence, said the defendant was a gentleman of independent means, who was doing a public work. He had already been instrumental in getting the price of gas reduced, and the object of the League was to get the cost of water charged against the consumers by meter instead of on the assessment of the premises. It was a *bono-fide* movement, and Sir Charles Dilke's secretary was in court ready to testify that the right hon. gentleman had been asked to present the defendant's petition next Session. Mr. de Rutzen said the matter must be investigated. He accepted the defendant's own recognisances to appear again.

Irish News.

Chemists' Charges.

Mr. R. J. Downes, M.P.S.I., writes to the *Irish Times* on the subject of chemists' charges, which was raised in the recent discussion between Mr. Hayes and the curate. Mr. Downes has "no hesitation in affirming that present charges are not fairly remunerative, and could not be considered satisfactory except when the business is supported by an efficient auxiliary." The rates, he says, have descended from the apothecaries, and include a "fee" for dispensing. This he puts at 1s. for mixtures, but pills, he thinks, are not paid for on a scale worthy of the skill and patience required in manipulating them. He thinks there should be a recognised fee for all dispensing work, and he complains of the people who speak as if they thought the tailor should supply a coat for the price of the cloth.

The Dublin Explosion Attributed to a Local Chemist

It has been reported from Paris that an Irishman named Murphy claims to be the author of the recent Dublin outrage. He describes himself as a chemist, living in Dublin. Murphy is unknown in Dublin as a chemist—at least, as one with any qualifications—whatever may be his skill in explosives.

The New Lord Mayor.

Alderman James Shanks, senior member and founder of the firm of James Shanks & Co., aerated-water manufacturers, Dublin, was on Monday last duly installed as Lord Mayor of Dublin for the year 1893.

Scotch News.

New Scotch Companies.

The following joint-stock companies were registered in Edinburgh last week:—

The Emerald Chemical Company, 175 St. Vincent Street, Glasgow; to purchase from Mr. Robert Watson recipes for the manufacture of Blacking's carbon compounds and hydro-carbon soaps, and his connection for the disposal of these, and to carry on the manufacture and disposal of these products and of other soaps or soap compounds, and to deal in chemicals. Capital 1,200*l.*, divided into 1,000 preference shares of 1*l.* each, and 200 founders' shares of 1*l.* each.

The Caledonian Chemists, 31 Reform Street, Dundee; to carry on the business of wholesale and retail chemists and druggists, drysalters, aerated-water manufacturers, &c. Capital 1,000*l.*, divided into 1,000 shares of 1*l.* each.

Snuffed Out Temporarily.

Last week, Harry Charles Fergusson, 29, veterinary surgeon, Perth, was sent, by Bailie Grant, at Elgin, twenty-one days to prison for stealing a snuff-horn from an Elgin chemist.

Business Changes.

Mr. Peter Wilson, son of Mr. J. Wilson, 116 Nicolson Street, has opened a shop at 11A Causewayside, Edinburgh., Mr. J. Kirk is having a shop fitted up at 5 Grange Loan, Edinburgh.

Mr. C. Simpson, Exchequer Row, Aberdeen, has purchased the business in Torry which belonged to Mr. Bremner, and will carry it on as a branch. Mr. Bremner will devote his attention to his Lossiemouth business.

Mr. W. K. Glover, late of the firm of Messrs. Davidson & Kay, chemists to the Queen, entertained the employés to supper in Mann's Hotel on Saturday, on the occasion of the termination of his connection with the firm. During the evening the Rev. William Ingram presented Mr. Glover with two volumes of Erickson's "Surgery," as a gift from the staff. The opportunity was also taken advantage of to present Mr. Clark (one of the employés who is about to leave) with a copy of Squire's "Companion."

Spite & Co. and Glasgow Pauper Medicines.

On December 29, at the meeting of the Govan Parochial Board, held in Glasgow, it was reported that the medical committee had agreed to order medicines required for the outdoor poor in the parish from Messrs. W. & R. Hatrick & Co. The following entry appeared in the minutes of the medical committee, approved of by the Board:—"A letter from Messrs. Francis Spite & Co., grocers, St. Enoch Square, wishing a share of the Board's business for drugs, &c., was submitted. It was moved by the Convener (Mr. Dunlop), seconded by Mr. Strachan, that a trial order of medicines be obtained from that firm."

French Pharmaceutical News.

(From our Paris Correspondent.)

PARIS MUNICIPAL LABORATORY.—This institution costs 11,330*l.* at present, but it is proposed to reorganise some of the departments at an additional cost of 3,072*l.*

A METALLIC DYE.—Professor Jolly, who has made the study of ruthenium a speciality, has just succeeded in preparing from that metal a brilliant red dye, which is fast on silk and other fabrics. The dye is a compound resulting from the action of bromine chloride upon ruthenium nitrite.

RETALIATION.—The new Swiss tariff goes rather against the hopes of French Ministers that friendly nations would be satisfied with minimum responsive rates. The tariff, dated from Berne December 28, shows that pharmaceutical products, perfumery, &c., are to pay 250*fr.*, as against 50*fr.* and 100*fr.* under the former general tariff.

EARLY CLOSING.—The town of Besançon, pleasantly situated in close proximity to Switzerland, has hitherto been famous principally as a centre of the watchmaking trade, but it has now taken the lead in the matter of early closing as regards pharmacies. Closing on Sundays is a thing practically unknown in the profession, and the pharmacists of Besançon consider that they have done a good thing for themselves by agreeing to shut at midday on the Sabbath. In addition to this, all shops are closed at 9 P.M. on weekdays. A common fund has been raised, by which a dispensary is open until 9 P.M. on Sundays in the centre of the town. The pharmacists take charge of this in turn, and the one on duty never lacks assistance; for, though it may appear paradoxical, the greater part of his colleagues appear to take pleasure in spending their Sunday afternoons in the small sitting-room attached to the dispensary. This is not bad, as it enables the pharmacists to meet on a common footing and tends to foster good fellowship.

MINERAL WATERS AND MICROBES.—MM. Colin and Roman, pharmacists at the Thermal Hospital of Vichy, have recently completed an interesting research, commenced with the view of discovering how microbes get into Vichy water, which is destitute of them originally. MM. Colin and Roman analysed the water at five separate stages—viz.,

(1) when it reaches the surface; (2) when the pumps are opened; (3) from the drinkers' glasses; (4) at bottling; and (5) from the bottles some time after they have been corked. The experiments appear to show that the contamination arises from the air at the apertures through which the water rises. It also transpires that when in bottles the number of bacteria contained in the water increases considerably during the first fortnight, but decreases again within a similar period. From numerous investigations the analysts find that the number of germs found in waters from various springs differ according to the temperature of the spring—the higher it is the more numerous are the microbes.

THE DECORATIONS OF JANUARY 1.—The customary list of the Legion of Honour decorations awarded at the commencement of each year has just been published. Three well-known representatives of pharmacy and chemistry have this year been selected for the distinction. Foremost amongst them may be mentioned M. Portes, the retiring President of the Paris Society of Pharmacy and chief pharmacist of the St. Louis Hospital, who is nominated chevalier. The well-known M. Girard, chief of the Paris Municipal Laboratory of Chemistry, is raised to the rank of Officer of the Legion of Honour. This gentleman has rendered the city great service by his careful and even courageous investigations in connection with the dynamite explosions of the past year. The other pharmacist who has been decorated is M. Laënnac, director of the Nantes School of Pharmacy. He ranks as chevalier. Under the heading of "Exceptional Services rendered during the last Cholera Epidemic" the names of some twenty medical men who have received various decorations are given. Apparently French pharmacists had no opportunity of distinguishing themselves at that period, or, if they had, the efforts passed unperceived by the proper authorities.

Foreign and Colonial News.

HUNGARIAN PHARMACOPŒIA.—It is ten years since the last edition of this Pharmacopœia was published, and a new one is now in preparation.

A DOLLAR-MILLIONAIRE DRUGGIST.—The death is announced, at Detroit, Mich., of Mr. Alonzo M. Shelly, aged 83, one of the founders of Farr, Williams & Co., wholesale druggists. His fortune is estimated at \$1,000,000.

OIL-DISTILLING IN GRASSE.—In an account of a visit to Messrs. Sozio & Andrioli's essential-oil distillery in Grasse which appears in a French journal, it is stated that an average quantity of 2,000,000 kilos. of orange-blossom, 1,800,000 kilos. of roses, 300,000 kilos. of violets, and 400,000 kilos. of jasmine flowers is distilled every year by all the factories of Grasse combined.

NEW ZEALAND PHARMACY AFFAIRS.—The election of the New Zealand Pharmacy Board has just taken place. The Board has its headquarters in one of the four centres of population for three years. This term it will be at Wellington, the capital of the colony. Four members are chosen at the headquarters, and one from each of the other districts. The names of those elected are: Wellington—Messrs. Geo. Mee, Thos. Gordon, F. W. Maddox, D. L. Turner; Auckland—J. A. Pond; Christchurch—Geo. Bonnington; Dunedin—R. Bagley. The members for Auckland and Christchurch were returned unopposed. It is probable that the Government will introduce a Bill next session dealing with pharmacy and sale of poisons, and it is a fortunate circumstance that the Pharmacy Board will be located at the seat of Parliament at this time. The attempt made by the last Board to get an Act passed ended in failure. Legislation is certainly needed to prevent unqualified persons from entering the business.

THE WORLD'S CONGRESS OF PHARMACISTS is to meet at Chicago on Monday, August 21, and the Seventh International Pharmaceutical Congress will meet the day after. American pharmacists are very proud of the first-named Congress, which is their own child, and it is said that it "will

afford a fit occasion for a presentation by the pharmacists to the public, and especially to the medical profession, the chemists, the botanists, and others whose work is, to a degree, related to their own, such accounts of the status of their profession, their art and its past and present, its relations and contributions to the welfare of man, and its requirements, as may promote an intelligent appreciation of the work they do." This looks like a public meeting addressed by pharmacists. In the International Congress pharmacists are the listeners as well as speakers. Amongst the members of the Advisory Council of the World's Congress are the following:—Professor John Attfield, Professor Bentley, Mr. Michael Carteighe, Mr. John Moss, Mr. Geo. F. Schacht, and Mr. E. C. C. Stanford, as representing England. The late Dr. W. Dymock's name is still on the list.

JERUBEIN.—At a recent meeting of the Alumni Association of Philadelphia, Professor Maisch made an inquiry on behalf of an English correspondent regarding jerubein, one of the ingredients of a prescription well known to English druggists, viz.:—

Erythroxyton	30 grains
Jerubein	30 "
Helonias dioica	30 "
Gelsemium	8 "
Extract of ignatia amara (alcoholic) ..	2 "
Extract of leptandra	40 "
Glycerine	q.s.

Mix, and make into 60 pills.

Take one pill at 3 P.M. and another on going to bed. In some cases it will be necessary to take two pills at bedtime.

This prescription is advertised in attractive style and to the effect that "the recuperative powers of this restorative are truly astonishing, and its use continued for a short time changes the languid, debilitated, nerveless condition to one of renewed life and vigour." The manufacturers, after giving the formula, philanthropically offer to send sixty pills for \$1, or six packages of the same for \$5. Jerubein may be a misnamed resinoid from the jurubeba berries. It can hardly be the poisonous alkaloid, jurubebene, isolated by Dr. F. V. Greene in 1877 from the green fruit of a solanum indigenous to Brazil. In any case it is well to let customers know the exact position of affairs, and this paragraph should be noted for reference. Many, we know, have had trouble with the prescription already.

SALE OF POISONS BY PHOTOGRAPHERS.—An important decision has been rendered, says the *Montreal Pharmaceutical Journal*, in a Quebec Court upon the question of the right of photographers or dealers in photographic supplies to sell or handle poisonous substances which are named in the Poison Schedule of the Quebec Pharmacy Act. The case was not tried upon the basis of dealings with or between photographers. The Pharmaceutical Association sued Mr. Livernois, Quebec's well-known photographer, for selling 1 oz. of cyanide of potassium, and for not having registered the name of the purchaser, date of sale and name of poison sold, and that furthermore the sale had not been made in the ordinary course of wholesale business. When the purchase was made the clerk in charge informed the purchaser that they did not sell poison by retail, but that there was about 1 lb. of the poison in a labelled bottle which they were willing to sell. This was purchased, hence the action. Judge Chauveau held that photographers are by the statute authorised to sell all poisons scheduled in said statutes as all wholesale druggists. The question raised was, "what must be considered wholesale in this matter?" The statute does not give any particular definition to that effect. "If, for instance," said the Judge, "we consider the Licence Act for liquor, we see clauses regulating the wholesale and retail business, and we can judge by it what is wholesale and retail for the purposes of that Act. Seeing that in the present case there is no statutory definition of what is wholesale or retail for druggists, and also evidence adduced showing the circumstances of purchase, and also evidence of Mr. Nagant, witness for defendant, who testified that he had purchased 1 oz. of cyanide of potassium from a firm exclusively in the wholesale drug business, the action must be dismissed with costs."

Pharmaceutical Society of Ireland.

PRELIMINARY EXAMINATION.

THE following are the questions set on January 2 by Dr. E. MacDowel Cosgrave, the Examiner:—

ALGEBRA.

1. What is the value of $(a-b)^2 + b^2 - a^2$?
2. Divide $x^4 - y^4$ by $x - y$.
3. Simplify the following expression:—
 $5a - 7(b-c) - [6a - (3b + 2c) + 4c - \{2a - (b + c - a)\}]$
4. Solve the following equation:— $\frac{x+1}{7} + x(x-2) = (x-1)^2$.
5. Find the value of the following:— $\frac{a-x}{b-x}$ when $x = \frac{ab}{a+b}$.

ARITHMETIC—WEIGHTS AND MEASURES.

1. If $\frac{1}{15}$ of an estate is worth 560*l.*, what is the value of $\frac{2}{15}$ of it?
2. What is the sum of $\frac{2}{3} + \frac{3}{4} + \frac{1}{5}$?
3. What is the interest of 3,790*l.* for four months, at 6 per cent.?
4. How is the greatest common measure of three quantities found? Find the G.C.M. of 29,472, 176,832, and 1,074.
5. What is the difference between the price of 743 oz. of gold at 3*l.* 1*7s.* 10½*d.* per oz. Troy, and that of the same weight of silver at 62*d.* per oz.?
6. Write down the metric table of weights. A parcel weighs 9 kilog. 4 hectog.; what is the value in francs of 125 such parcels, at 1*fr.* 75c. a kilog.?

ENGLISH GRAMMAR AND COMPOSITION.

1. Explain the following terms:—Conjugation, Affix, Predicate, Mood, Transitive.
2. What are relative pronouns? Give examples with sentences in which they occur.
3. What is meant by the case of a noun?
4. What are the three ways in which gender is distinguished? Give examples of each.
5. Parse the following sentence:—"I, by my wit, my way in life must make."
6. Write an essay on one of the following subjects:—"Christmas Day," "Charles Lever," "Penny Papers."

LATIN.

1. Translate either of the following passages:—

Urbs antiqua fuit—Tyrii tenuere coloui—
 Carthago, Italian contra Tiberinaque longe
 Ostia, dives opum, studiisque asperrima belli:
 Quam Juno fertur terris magis omnibus unam
 Post habita coluisse Samo. Hic illius arma,
 Hic currus fuit; hoc regnum Dea gentibus esse,
 Si qua fata sinant, jam tum tenditque fovetque.

VIRGIL.

2. Hoc proelio facto, reliquas copias Helvetiorum ut consequi posset pontem in Arare faciendum curat, atque ita exercitum transducit. Helvetii repentino ejus adventu commoti, quum id, quod ipsi diebus viginti agerrime confecerant, ut flumen transirent, uno illum die fecisse intelligerent, legatos ad eum mittunt: cujus legationis Divico princeps fuit, qui bello Cassiano dux Helvetiorum fuerat.—CESAR.

3. Give the principal parts of the verbs in Italian.
4. Decline in full tertia, currus, proelium, dies, giving their gender.

PHYSICS AND CHEMISTRY.

(Old Regulations.)

1. How would you show the effect of heat upon—(a) solids; (b) liquids; (c) gases?
2. The temperature of the human body is 98° F. What is it on the Centigrade scale?
3. Describe the structure of the aneroid barometer.
4. What is the composition of water? How may this be demonstrated? Give the relative proportions of its component parts by bulk and by weight.
5. How is mercury obtained? What are its characteristics? Why is it used for thermometers?
6. How does chlorine occur in nature? Describe (with chemical equation) the method by which it is obtained.

CHEMISTRY.

(Optional Subject.)

1. What is the only known compound of chlorine and hydrogen? How is it obtained?
2. What are the different chemical compounds of nitrogen with oxygen? Give the symbols of each.
3. How can hydrogen be obtained? What are its properties?
4. Distinguish between a mechanical mixture and a chemical compound, giving examples of each.
5. Write out the following in full:—
 $2\text{NaCl} + 2\text{SO}_4\text{H}_2 + \text{MnO}_2 = 2\text{Cl} + \text{Na}_2\text{SO}_4 + \text{MnSO}_4 + 2\text{H}_2\text{O}$
 $\text{Ag}_2\text{O} + 2\text{HNO}_3 = \text{H}_2\text{O} + 2\text{AgNO}_3$
 $6\text{I} + 6\text{KOH} = \text{KIO}_3 + 5\text{KI} + 3\text{H}_2\text{O}$

ELEMENTARY PHYSICS AND MECHANICS.

(Optional Subject.)

1. What is meant by latent heat?
2. Give some examples of the practical uses to which the expansion of solids by heat has been put.
3. When light falls upon an opaque body it may be considered as becoming separated into three parts. What becomes of each part?
4. What is Boyle's law of the compressibility of gases?
5. What is a hydraulic tourniquet?
6. For a balance to be good what conditions must be satisfied?

BOTANY.

(Optional subject.)

1. Describe a typical adult vegetable cell.
2. What is the appearance of the stem of a tree when cut across? Name the different structures met with from within out.
3. Give examples of the following fruits:—(a) pome; (b) berry; (c) drupe; (d) achene; (e) pepo.
4. Name plants which have the following leaves:—(a) ovate; (b) palmate; (c) pinnate; (d) teruate; (e) pinnatifid. Give sketches of each variety.

Trade Notes.

A GOLD, a silver, and a bronze medal have been awarded at the Kimberley Exhibition for the well-known Montserrat lime-fruit juice, cordials, and sauce.

In a recent note on Mr. Mülhens's London establishment, we remarked that Dr. Eichhoff was an assistant to Dr. Unna. This is an error. Mr. Reuter informs us that Dr. Eichhoff "has for many years been the head of one of the most important dermatological institutions in Germany, and he is looked upon as a first-class authority amongst continental dermatologists."

WE have received the first number of *Potter's Bulletin*, which is published by Messrs. Potter & Clarke, of Raven Row, E. It is to give new ideas, movements, books, remedies, formulæ, and preparations, mainly, we suppose, of a botanic nature. The present number contains an article on Jamaica dogwood, formulæ for asthma-mixtures, &c. The *Bulletin* is priced at 2*d.*, post free.

MESSRS. BURROUGHS, WELLCOME & Co. have this year printed 30,000 of their vest-pocket calendar diaries for the use of chemists and medical men. These are most useful little diaries, which just fit into the watch-pocket, and contain pages for engagements, addresses, memoranda, and cash account, with a lot of printed notes which are of daily use. The firm will send a copy to any chemist or chemist's assistant who drops them a post-card.

A LEARNED professor and a young lady were talking about association of ideas as an aid to memory. She said, "Professor, is it not strange how one thing brings up another." "Yes, an emetic generally does," was the somewhat ungallant reply.

SAID she, with a supercilious air: "Give me a postage-stamp." It was given to her, and, as she handed out the change, she said, looking disdainfully at the assistant, "Must I put it on myself?" "Well, no," said the assistant; "you had better put it on the letter."

Legal Reports.

THE SALE OF FELLOWS'S SYRUP BY GROCERS IN IRELAND.

THE actions against two firms of grocers at Sligo, in reference to the sale of Fellows's Syrup, which had already been before the local magistrates twice, came on again for hearing at the Sligo Petty Sessions, on Monday, January 2. The magistrates present were Mr. F. B. Henn, R.M.; Mr. A. F. Nelson, and Mr. J. Walsh. Inspector Pearce prosecutes, and the defendants are Messrs. Sinclair & Co., and Messrs. Robertson, Ferguson & Co. The charges are the same in both cases—viz., of selling poison without being duly licensed to do so, and of selling poison not labelled, as required by the Sale of Poisons (Ireland) Act. Mr. Powell appeared for the prosecution, and Mr. Fenton for the defendants.

Mr. Powell said he was not in the case on the last court day, but he believed there had been some suggestion made that the case should not be proceeded with on certain terms. The prosecutors, however, had not seen their way to withdraw the prosecution.

Sergeant Pearce, Inspector of weights and measures, and also Inspector under the Food and Drugs Act, proved the purchase of a bottle of Fellows's Syrup from Mr. Sinclair, on November 3. There was no label on the bottle to show that it contained poison. The only thing on it was a notice that it should be measured carefully. Mr. Sinclair is a general grocer. He also bought a bottle of the same syrup from Messrs. Robertson & Ferguson. Mr. Fenton admitted the sales, but objected to evidence from the Inspector or from the annual register that these vendors were not pharmaceutical chemists.

Cross-examined by Mr. Fenton: You do not know what the component parts of this stuff are?—No, sir.

Did you ever take any of it yourself?—Never.

Because I tell you it is a very good stuff for the health.—I don't know.

You say that none of these were labelled "Poison"?—None.

How many chemists' shops are there in this place?—Four.

You did not visit any of these places?—No.

Did you ever know that these people sold Fellows's Syrup?—No.

Did you not? Did you know whether they sell Fellows's Syrup? It is your business to find out any person who may sell poison without its being labelled. Is it not your duty?—Yes.

Do you believe that Dr. White, Dr. Denning, Dr. Boyers, and Dr. Harris sell Fellows's Syrup without there being a poison label on it?—I believe they do, but I am not sure.

You never thought it your business, in the exercise of your duty, to call on these?—Because they were duly qualified chemists.

Are not Mr. Sinclair and Mr. Kell very respectable men and not likely to offend against the law either accidentally or otherwise—is not that your experience?—Yes, since I came to Sligo.

Neither sell medicine but made up in parcels?—Yes.

Don't you know, as a matter of fact, that they don't sell any medicine by compounding?—Yes.

Who are the people who are prosecuting in this case?

Mr. Powell: I object.

Mr. Nelson said that he was about asking the same question.

Mr. Fenton: Who ordered you to do it?—I received orders from the County Inspector's Office.

Is it not the Pharmaceutical Society that is prosecuting in this case?—I believe it is.

Did you see the bill?—I did.

And you said that it was the Pharmaceutical Society that was doing this?—Yes.

Who are the Pharmaceutical Society?—Mr. Ferrall acts for the Society as registrar and treasurer.

Do you believe that there are some persons behind the scenes in this town?

Mr. Walsh: I don't think that is a fair question.

Sergeant Pearce said he did not know.

Mr. Fenton: Of your own knowledge you cannot say that there is poison in this medicine?—I could not prove it.

Dr. Boyers was next called.

Mr. Powell, solicitor: I thought it right, your worships, in order to prove that Fellows's Syrup does contain poison, to take the precaution to summon every pharmaceutical chemist in Sligo, and it was almost by the aid of two policemen that we got the present witness. (Laughter.)

Mr. Fenton: I think he should sue the society for three guineas.

Dr. Boyers said he knew as a chemist that one of the ingredients of Fellows's Syrup was strychnine.

Cross-examined by Mr. Fenton, he said he considered the onus of labelling the bottles "Poison" would rest on the producer of the medicine and not on the dispensers.

Mr. Fenton: Do you say you are not bound to label it "Poison"?

Mr. Powell: I object on principle of law.

Mr. Henn: He might say that it is not the case that he is bound to label poison.

Mr. Powell: I say that the matter is not *ad rem*, and it cannot be to the credit of the witness.

Mr. Henn said that the Bench always wished to give cross-examination the fullest possible scope.

Mr. Fenton said his cross-examination was as to the credit of the whole proceedings, which were disgraceful to some one.

Witness, in reply to Mr. Fenton, said he was always under the impression that there was a small cautionary label on each bottle of Fellows's Syrup.

Will you swear that all the bottles in your house have the label?—I would not swear that. There may be some which were in stock before the passing of the Foods and Pharmacy Act passed, and they may not be labelled.

Don't you get the bottles in the same way as Messrs. Sinclair and Kell?—Yes.

Theirs are not labelled "Poison"—you don't put a label on it?—No.

Then you agree with me that they are not labelled "Poison"?—I always thought there was a poison label at the back.

Could the poison in Fellows's Syrup do hurt to anyone?—Certainly it could. I saw a person suffer from the effects of strychnine poisoning after a glass of it.

If you drank half a bottle of it, would you die?—There would be strychnine poisoning.

At this stage the proceedings were again adjourned.

IMPORTING PROPRIETARY MEDICINES IN BULK.

SOME months since the Commissioners of Customs at Auckland, N.Z., obtained judgment against Messrs. Sharland & Co. for 1,960*l.*, as treble the value of four cases of pills consigned to them by A. J. White & Co., of London, on the ground that they were entered and duty paid as "druggists' sundries," whereas they were alleged to be in fact a "proprietary medicine"—namely, Mother Seigel's pills. The defendants appealed, alleging that Judge Conolly found himself, without leaving the questions to the jury, that the pills were "proprietary medicines," and that their value was 63*l.* 6*s.* 8*d.*, while the evidence showed that the pills were consigned in bulk, as "four cases pills, 400 lbs. at 4*s.*, 80*l.*," and that this was the actual market value. In November last the case came before the Appeal Court at Wellington. The judges disagreed. Mr. Justice Richmond held that the pills were actually proprietary medicines and were rightly charged as such; but Mr. Justice Williams said there was no evidence that the goods were other than ordinary goods when the Customs authorities assessed them, whatever they might become afterwards. Mr. Justice Denniston took the same view, and, the majority of the Court being in favour of the appellants, the appeal was allowed. Leave was given to take the case to the Privy Council. [Firms interested in this important case should get a full report in *The Chemist and Druggist of Australasia*.]

COMPLEX ODOURS.—M. Jacques Passy has made the curious observation that proceeding from very small quantities—say, of amyl alcohol—two different perfumes will be perceived to increase and then diminish in succession, finally giving way to an odour which soon becomes disagreeable as it increases in strength. The transition from perfume to unpleasant odour is very general in volatile substances.

Bankruptcy Reports.

Re JOHN PURRETT, Worle, Somerset, Manufacturing Chemist.

THE summary of the debtor's statement of affairs shows liabilities 858*l.* 12*s.* 6*d.*, and assets, comprising cash in hand, 17*l.* 4*s.*; cash at bankers, 1*l.*; stock-in-trade, 25*l.*; furniture, 50*l.*; book-debts (good), 11*l.* 9*s.* 6*d.*. The receiving order was made on the debtor's own petition. The debtor states that he became aware of his insolvency a month ago. The debtor is carrying on business at Worle as J. Purrett & Co. He commenced business in 1860 with a capital of 500*l.*. From 1872 until 1890 he was in partnership with Mr. H. P. George, trading as Purrett & George, brewers and mineral-water manufacturers. The partnership was dissolved in August, 1890, the debtor receiving 750*l.* in respect of his half-share. The debtor has kept a ledger, day-book, and bank pass-book. His deficiency is accounted for as follows:—Excess and liabilities over assets on December 19, 1891, 483*l.*; net loss from carrying on business since December 19, 1891, 15*l.*; household expenses of self, wife, and three children for one year, 125*l.*; travelling expenses and other incidentals, 16*l.* 12*s.*; total amount accounted for, 774*l.* 12*s.*. The following are the creditors:—

	£	s.	d.
Bailey & Co., Weston-super-Mare	10	0	0
Beaker, J. B. Bristol	100	0	0
Bush & Co., London	13	1	3
Corfield & Granville, Banwell	10	10	0
Davis, J., Bristol	122	10	0
Davis, W., Haverfordwest	45	1	2
Davis, W. G., Banwell	20	0	0
Davis, C. J. & Co., London	17	15	10
Deverell, J., Bourton	10	0	0
Edmonds & Giles, Bristol	26	0	0
Fortesque, J., Banbury	10	5	0
Gardner, Thomas & Co., Bristol	10	14	0
Gates, A. E., Exeter	10	12	6
Green, E. A., Bath	50	0	0
Lewis & Son, Bristol	10	17	0
Noble, P., Newport, Mon.	50	0	0
Price, A., Birmingham	100	0	0
Purrett, A. H., Worle	15	0	0
Purrett, J., Worle	10	0	0
Purrett, L., Worle	30	0	0
Purrett, S. A., Leighton	100	0	0
Purrett, T., Worle	20	0	0
Royal Assurance Co., London	18	14	0
Taylor, Sons & Hawkins, Bristol	10	12	0
Tytherleigh & Barnard, Weston-super-Mare	11	18	8
Walters, J. H., Bristol	10	0	0
<i>Fully Secured.</i>			
Star Life Office, London	18	0	0

Re ARTHUR SINGINEX, late Stoke-on-Trent, formerly of Liverpool, and now of Pontyblayddn, near Mold, Chemist.

THIS bankruptcy came up for public examination at Chester on Tuesday before the Registrar. The statement of affairs showed liabilities 200*l.*. In reply to the Official Receiver, the debtor said his present position had been brought about through pressure by creditors. He was willing to pay 10*s.* per week towards the liquidation of his debts out of his earnings. He was now in the employ of the Leeswood Spelter Company at a salary of 2*l.* per week. The debtor was allowed to pass his examination.

Re ROBERT HARDY, 23 Fenchurch Street, E.C., Chemist and Druggist.

UNDER the failure of this debtor, who filed his own petition on November 29 last, accounts were issued from the London Bankruptcy Court on Thursday showing unsecured debts 2,300*l.* 1*s.* 7*d.*; fully secured debts, 360*l.* 14*s.* 9*d.*; preferential claims, 284*l.* 15*s.* 6*d.*; assets, 906*l.* 15*s.* 5*d.*; and a deficiency of 1,678*l.* 1*s.* 8*d.*

Mr. H. Brougham, the Official Receiver in charge of the case, reports that the debtor makes no proposal, and has been adjudged bankrupt. He (debtor) states that he com-

menced business in August, 1878, in partnership with another person, with a joint capital of 1,000*l.*, at 42 Fenchurch Street, E.C., where (and also from June to December, 1879, at 5 Doveridge Terrace, Champion Hill, Dulwich) they traded until June, 1880, when his partner retired, and he (the bankrupt) paid him 650*l.*, and took over and continued the business alone until the expiration of the lease in 1888. That in November, 1884, he also purchased a business at 165 Brecknock Road, which he sold in April, 1889; that in June, 1888, he bought a shop at 27 Great Tower Street, E.C., which he sold in September last for about 800*l.*; and that in May, 1890, he bought another business at 6 Railway Place, E.C., which he sold in August, 1891, for 750*l.*. That in June, 1888, having then about 1,800*l.* capital, he took his late premises at 23 Fenchurch Street, E.C., where he carried on business down to the date of the receiving order. He attributes his failure to want of available capital, to badness of trade, to his business and personal expenses, and immediately to pressure by creditors. His deficiency-account shows household and personal expenses since July 31, 1891, 800*l.*; loss on sale of lease, stock, fixtures, and fittings of business, No. 23 Fenchurch Street, E.C., 1,173*l.* 3*s.* 4*d.*; and net loss on trading (estimated to balance), 195*l.* 4*s.* 9*d.*. He kept the usual books of account, but they have not been balanced since July, 1891, and are in that respect and otherwise imperfect. The creditors "fully secured" are stated to hold an equitable charge on the lease of 23 Fenchurch Street, given November 22, 1892, for 55*l.* 1*s.* 10*d.*, for goods previously supplied, and cochineal, valued at 320*l.* 12*s.* 11*d.*, as against advances thereon amounting to 305*l.* 12*s.* 11*d.*. Since the receiving order the stock, fixtures, &c., lease, and goodwill of the business at 23 Fenchurch Street, have been sold for 800*l.*, which amount is subject to the charge of 55*l.* 1*s.* 10*d.*, before mentioned. An asset "other property" is stated to be oil-paintings, estimated at 15*l.*, and a life-policy of no value.

Re THE DEE OIL COMPANY (LIMITED).

A STATEMENT has been published by the liquidator of this company showing that the debenture-holders (for whom the business is being carried on) have a claim on the whole of the assets, and that there is, practically, no possibility of the realisation proving sufficient to pay any dividend to the ordinary creditors. Inquiries have been instituted by the Official Receiver into the circumstances attending the failure of the company with the object, amongst others, of ascertaining whether a liability exists by reason of statements made in the prospectus. As a result of these inquiries it appears probable that the Official Receiver will be advised to take proceedings against some of the directors and persons connected with the company. An application is shortly to be made to the Court in the debenture action for the purpose of obtaining its views as to the advisability of continuing the business, or closing it forthwith and effecting an immediate realisation. It is understood that the Receiver for the debenture-holders has been unable to obtain a satisfactory offer for the concern, and it does not appear that any benefit will arise by further continuing the trading.

TRADE-MARKS APPLIED FOR.

(From the "Trade Marks Journal," January 4, 1893.)

"DR. FARR'S MEDALLION"; signature and wording, on round label; for an antiseptic. By H. Foster & Co., 34 Clement's Lane, London. 167,561.

"LECTERIN"; for a medicine for human use. By F. Stones, 24 Ainsworth Street, Blackburn. 167,249.

Device of goat holding banneret, with wording; for a cough-mixture. By H. Davies, Plas Street, Machynlleth. 167,583.

"SANOMA"; for chemical substances used in medicine and pharmacy. By J. E. J. Bonn, the Pharmacy, High Street, Brading, Isle of Wight. 168,467.

"ZYRO"; for a cough-medicine. By E. Mather, 31 Knjic-smith Gate, Chesterfield. 168,609.

CARAMEL.

By W. H. McGRATH, Gloucester.

FEW people outside actual consumers have any idea of the large consumption of caramel in this country. To give an example, brokers of this product—in Liverpool, at any rate—have a mutual understanding not to dispose of less quantities than 1 ton. To my certain knowledge an order for half this amount has been refused. Most of the caramel used in this country comes from abroad; though why this should be so is difficult to say, when it might be equally as well made at home. I hoped to have given reliable information regarding its import, and for this purpose made application to the Board of Trade; but owing to caramel being amongst the unenumerated imports they were unable to supply the statistics.

There are three processes known for its production:—(1) By dialysis of an aqueous solution; (2) by precipitation with alcohol; (3) the one always used for preparing it on a large scale—viz., by heating sugar to a certain point and then adding water. The products of the first two are only interesting as chemical curiosities; though I believe they have been used to a slight extent in medicine for catarrhal affections of the stomach with beneficial effect. The third product is therefore the one with which we have to deal.

Some time back, on going through our stock, I noticed that a few of our syrups, after standing for a week or two, had deposited a darkish-looking sediment. This at the time was rather puzzling, as it was impossible to settle off-hand what it was due to. It could have proceeded from the water. This was examined and found right. Sugar could have caused it by being imperfectly drained; but this was found right also. All our sundries were then taken in hand systematically without success until I came to the last item—viz., the subject of this paper. It may be well to mention that caramel, when required, is, as a rule, added to the warm syrup in the pan. Precipitation must then have taken place, the precipitate apparently being completely absorbed by the filtering medium; for, although the resulting syrup was star-bright when made and first bottled, this deposition appeared in the manner above stated owing, as I have since proved, to the slow action of the acid employed on the colouring medium. A small batch of caramel was now made, using refined cane sugar. Result *nil*. A similar batch was made from raw cane sugar, which upon trial gave precisely the same reaction as that in stock. Here, then, was the disturbing factor, and in a most unlooked-for quarter.

Following this up, a series of investigations was arranged which embraced as many varieties of caramel as I could possibly obtain, with the view of not only pointing out the mistake of using raw cane sugar, but also of giving direct evidence of the necessity of using none but the very best descriptions of refined cane sugar for the manufacture of caramel when intended for the use of mineral-water manufacturers. I think I may go farther, and say that before I conclude it will be clearly shown that the making and testing of a small batch of caramel in the manner directed hereafter, may prove a useful means of passing or rejecting any given sample of sugar submitted for trial. Of one thing I am fully convinced, and that is that a sugar which will make a colour answering all the requirements of this trade must necessarily be of first-class quality. For carrying out these operations the following apparatus will be required:—

A small copper pan, 5 inches diameter, $3\frac{1}{2}$ inches deep, with a couple of handles, which any coppersmith will make for three or four shillings, one $\frac{1}{2}$ -pint porcelain dish, one 20-oz. enamelled-iron pan, one 6-inch glass rod, one glass plate 6×4 inches, two iron tripod-stands, and two Bunsen burners. The tripod-stands should be about 3 inches higher than the burners.

THE OPERATION.

Three and a half ounces of sugar are to be carefully weighed out and introduced into the copper pan placed on a tripod-stand, one of the burners lighted, the flame being turned down to about $1\frac{1}{2}$ inch in height, and placed underneath. Next, half fill with water the enamelled-iron pan on the second stand, place a burner underneath, and bring to the boil. This should be kept simmering constantly. The

sugar in the copper pan soon begins to fuse, and becomes after a short time quite liquid. Puffs of vapour are now rapidly given off, very trying to the eyes, the sugar darkens, and usually swells up to half the panful, then settles down again, and though boiling vigorously is easily manipulated. Continue the heat until it begins to thicken, when it must be most carefully watched, and tested about every other minute by dipping the glass rod into it and dropping on the glass plate. If the drop so tested becomes brittle and looks black, the operation is at an end; the burner is withdrawn, and the boiling water added a few drops at a time, the operator stirring assiduously at each addition. If the work has been properly done, it will be found that the superheated sugar becomes nearly solid and will have to be dissolved out, each portion so dissolved being transferred to the porcelain dish, previously tared, the whole being made up to 5 oz. As the sugar during the process loses $\frac{1}{2}$ oz. (verified by repeated trials), it will at once be seen that we have here a colour of 60-per-cent. strength, or, in other words, containing 40 per cent of added water.

There are two reasons for adding the water a few drops at a time, one being that if more than this quantity be added at once the contents of the pan will inevitably go solid, or "rocky," as the term is; the other reason being, so much steam would be suddenly generated that the hand of the operator nearest the pan would most certainly be scalded. I speak from experience, having superintended the making of this article for some years, and I feel certain that those who have been similarly placed will readily bear me out on this point.

RESULTS IN WORKING THE VARIOUS SUGARS.

1. Messrs. Havemeyer & Elder, New York.—*Small white crystal*. Works very steadily. Fine bright deep golden colour.
2. Castle Sugar Refinery.—*Coarse white crystal*. Froths considerably, demanding constant attention. Good colour, but inclined to brown.
3. S. & M.—*Golden syrup* (local purchase). Works steadily. Good colour; cloudy.
4. B. & V.—*Golden syrup* (local purchase). Works steadily. Fine bright colour.
5. S. & M.—*Demerara* (local purchase). Works steadily. Splendid colour.
6. Old Market.—*Coarse white crystal*. Froths a little during the operation. Good colour, inclined to brown.
7. Messrs. Geo. Crossfield & Co., Stanley Street, Liverpool (local purchase).—*Very small white crystal*. Works steadily. Splendid colour.
8. Messrs. Abram Lyle & Son, London (local purchase).—*Light brown crystalline*. Most tiresome in working, frothing continually to more than half the pan full, so that only a few minutes' heat at a time could be kept to it. Good bright colour.
9. Henry Tate & Son, London.—*Cubes* (local purchase). Works steadily. Good colour, inclined to brown.
10. Messrs. Martineau & Sons (Limited), 21 Mincing Lane, London.—*Low raw beet*. Very dark brown, crystalline, having a heavy, disagreeable odour. Works with much difficulty; inclined to burn. A very muddy-looking colour.
11. M. & S.—*Good raw beet*. Light yellow, crystalline. This, as well as 10, runs into a pasty, frothy mass, and works tediously. Muddy-looking colour.
12. M. & S.—*French crystals made direct from beet*. Small, white, well-defined crystals. Merges into small lumps at first, afterwards works steadily. Nice bright colour.
13. M. & S.—*Low raw cane sugar (Jaggery)*. Very dark brown, almost black; in large lumps, and very damp. Works steadily. Muddy-looking colour.
14. M. & S.—*No. 1 pieces moist sugar, refined*. Very pale brown, soft. Works easily, but requiring heat to be withdrawn occasionally, owing to inclination to swell up in the pan. Fine bright colour.
15. M. & S.—*No. 2 pieces moist sugar, refined*. Dirty looking, pale brown, soft, interspersed with small lumps. Rather troublesome. Muddy-looking colour.
16. M. & S.—*No. 1 crystals*. Large, clear, white. Very easy to work. Splendid colour.
17. M. & S.—*No. 1 cubes*. As No. 16.
18. M. & S.—*M. W. titlers* (loaf sugar), specially prepared.

The Chemist and Druggist

SUPPLEMENT

Businesses Wanted.
Businesses for Disposal
Premises to Let.
Auction Sales

SATURDAY, JAN. 7. 1893.

Partnerships.
Situations Vacant.
Situations Wanted.
Miscellaneous.

A Copy of this Supplement is inserted in every number issued of "The Chemist & Druggist"

PLEASE NOTE

ADVERTISEMENTs for this Supplement must be received at the Office, 42 Cannon Street, E.C., not later than 5 o'clock on Thursday Evenings, for insertion in the current week's issue. Advertisements must be prepaid. Remittances by post may be made in stamps, or by postal order made payable to "EDWARD HALSE," and crossed MARTIN'S BANK (LIMITED). To ensure prompt attention address all communications endorsed "Supplement," to The PUBLISHER of "THE CHEMIST AND DRUGGIST."

OFFICES: 42 CANNON STREET, LONDON, E.C.

CHEMISTS' TRANSFERS.

MESSRS. ORRIDGE & CO., 32 LUDGATE HILL, E.C.

CHEMISTS' TRANSFER AGENTS,

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION.

The business conducted by Messrs. ORRIDGE & Co. has been known as a Transfer Agency since the year 1846, and is well known to all the leading firms in the Trade. VENDORS have the advantage of obtaining an opinion on value derived from extensive experience, and are in most cases enabled to avoid an infinity of trouble by making a selection from a list of applicants for purchase, with the view of submitting confidential particulars to those alone who are most likely to possess business qualifications and adequate means for investment. PURCHASERS who desire early information regarding eligible opportunities for entering business will greatly facilitate their object by describing clearly the class of connection they wish to obtain.

1.—£700.—LONDON (good-class locality).—Well-established Family Business; held by vendor many years; returns at present nearly £700 yearly; well-fitted shop and good stock; large house attached; terms to be arranged.

2.—£700.—LONDON (central position).—Good middle-class and ready-money locality; Retail and Dispensing Business; returns at present about £700 yearly, rapidly increasing; well-fitted shop and good stock; about £450 required.

3.—£1,300.—LONDON E.—Very old-established Business; returns nearly £1,300 yearly; well-fitted shop and good stock; premises large and convenient; about £1,200 required.

4.—£800.—LONDON, N.W.—Retail and Family Business; returns over £800 yearly; large, attractive house and shop, with good garden attached; about £750 required.

5.—£500.—KENT.—Unopposed good class Family Business, situate in a good residential locality; returns about £500 yearly, capable of being much increased; large house and garden (nearly $\frac{1}{2}$ of an acre); about £450 required; worth attention.

6.—£2,000.—EASTERN COUNTIES.—Partnership.—Wanted, in a very old-established Business, a gentleman with about £2,000; an adequate income offered for the investment.

7.—£100.—SUSSEX.—Good unopposed Business; returns about £400 yearly, with profits above the average; convenient house, and small garden; about £400 required.

8.—£550.—FASHIONABLE WATERING-PLACE (West of England).—Good-class Dispensing and Retail; returns between £550 and £600 yearly; handsomely-fitted shop with good stock; house convenient, has private entrance and all conveniences; price £475, or valuation of stock and fixtures if wished.

9.—£1,800.—CORNWALL.—Old-established Business situate in a prominent position in a first-rate town; returns average over £1,800 yearly, including a Wine Agency; large and convenient house, storerooms, &c.; held on lease at very moderate rental; valuation of stock and fixtures will not exceed £1,500; full particulars on application.

10.—£3,000.—NORTH OF ENGLAND.—Fashionable suburb of a large town; a first-class Dispensing Business; returns nearly £3,000 yearly, with good profits; no heavy business of any kind; full particulars will be furnished to an applicant prepared to invest about £2,200.

11.—£1,600.—NORFOLK.—Old-established Agricultural and Dispensing Business in a very good class locality; opposition not important; returns about £1,600 yearly; ample scope for extension; first-class business premises and excellent position; about £1,200 required.

12.—£800.—SUSSEX.—Fashionable watering-place; good-class Business; situate in a main street; returns £800 yearly; well-fitted shop and good stock; rental moderate; small premium only required; stock and fixtures at valuation.

13.—BIRMINGHAM.—Old established Business; Dispensing and Retail and Prescribing; returns £700 yearly; very profitable; single-fronted shop, well-fitted, and good stock; 7-roomed house, warehouse, &c.; low rental; price about £480.

14.—E38thX (London suburb).—Retail and Dispensing Business with Prescribing; returns £1,100 yearly, with large profits, above the average; shop has single front, is well fitted, and good stock; house has 8 rooms, shop, and small garden; price £900; long beneficial lease.

Particulars of any of the above will be furnished on application.

N.B.—NO CHARGE TO PURCHASERS.

Other Businesses, Town and Country. Particulars free on application. Personal applicants receive Messrs. O. & Co.'s direct attention and advice, where required, free.

TERMS FOR VALUATION ON APPLICATION. APPOINTMENTS BY POST OR WIRE HAVE IMMEDIATE ATTENTION.

Messrs ORRIDGE & Co. invite communications from COLONIAL and FOREIGN firms where business of a confidential nature requires the especial attention of a London Agent

NOTICE.—Messrs. ORRIDGE & CO. have a large number of Businesses for Sale, suitable for Gentlemen with Small Capital. Full particulars on application.

ORRIDGE & CO., 32 Ludgate Hill, LONDON, E.C.

F. J. BRETT,

VALUER, LEICESTER,

60 St. Stephen's Road.

References to principal London and Provincial Wholesale Houses, also to numerous clients throughout the United Kingdom.

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NO CHARGE TO BUYERS.

STOCKTAKING UNNECESSARY.—Stocktaking is always dreaded by Chemists, and with a competent Valuer is not necessary.

F. J. BRETT is prepared to estimate or to value entire stocks as they stand with little or no inconvenience to ordinary business, and has repeatedly done so with entire satisfaction to those adopting this mode.

STOCKS AND FIXTURES BOUGHT FOR CASH.

LEICESTER.—Light Retail, Dispensing, and Prescribing; returns £500; capable of increase; price £400. **NORTH.**—Returns £1,400; net profit £600; very profitable; Light, Retail, and Proprietaries; price £900. **NORFOLK.**—Returns over £1,000; net profit £300; exceptionally good business; excellent house and premises; price £950, part might remain on security. **YORKS.**—Good-class Retail; returns £700; net profit £250; valuation about £600; part can remain.

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CHEMISTS' TRANSFER AGENTS & VALUERS,

30 JEWRY STREET, ALDGATE, E.C.

Established 1870.

VALUATIONS and TRANSFERS conducted in any part of the United Kingdom. Over 20 years' practical experience.

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Messrs. BERDOE & CO. are in immediate want of genuine Businesses requiring an investment of £500 to £3,000 cash. Clients are waiting with the money. Gentlemen wishing to sell should communicate at once; strict confidence guaranteed. Can refer to many well-known Chemists whose Businesses we have recently sold.

1.—**YORKSHIRE.**—Good-class light Retail, Dispensing, and Prescribing Business; good business town; returns £1,700, and making £600 net profit; same has done many years; good house; price £350.

2.—**HOME COUNTY.**—Retail, Dispensing, and Prescribing Business, with a good Agricultural connection; returns £2,000; net profit £600; very handsome premises; good house and garden; price £1,650.

3.—**WEST OF ENGLAND.**—Retail, Dispensing, and Prescribing Business; returns £1,350; owner retiring after an occupation of nearly 40 years; good house; valuation of stock and fixtures required; no premium.

4.—**KENT.**—Market town; Retail, Dispensing, and Prescribing Business; returns £500 under indifferent management; good house and garden; large shop, well fitted and stocked; price £350.

5.—**SOUTH-FORTH.**—Retail and Prescribing Business, capable of considerable increase; returns £550 as a Branch under indifferent management; good house; price £300 or valuation.

6.—**DERBY.**—Retail and Prescribing Business; returns £500 under management; carried on as a Branch; low rent; good house; ill-health cause of sale; price £260; worth attention.

7.—**LONDON, N.W.**—Few miles out; Retail, Dispensing, and Prescribing Business; returns £370; net profit £150; good house; no opposition; same hands 9 years; price £135.

8.—**LONDON, W.C.**—Retail, Dispensing, and Prescribing Business; returns £700; excellent position; well adapted for a Branch; owner, being ordered abroad, will accept £450 or reasonable offer.

9.—**LONDON, N.W.**—In a distant suburb; good-class Light Retail and Dispensing Business; scope for increase; returns £800; net profit £325; good house and garden; price £750.

10.—**LONDON, W.**—Main thoroughfare; very handsome double-fronted shop, well stocked; returns £760; good house; Retail, Dispensing, and Prescribing Business; price £550; worth special attention.

Messrs. Berdoe & Co., 30 Jewry Street, Aldgate, E.C.

BUSINESSES FOR DISPOSAL.

YORKSHIRE.—For disposal, a neatly-fitted Business in a thickly-populated and improving district in a large town in the East Riding; corner shop, good position, and doing well; price about £250. Apply, M. S., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

IMMEDIATELY, through ill-health, ready-money Business; splendid opportunity for young man commencing; the only Chemist in a district of 4,000; appointment more than pays rent; to effect an early sale will take £175. Address, Brown, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WEST OF ENGLAND.—Fashionable health resort; good Retail and Dispensing business handsomely fitted; returns nearly £600, and rapidly increasing; satisfactory reasons for selling; to effect an early sale, vendor will accept valuation of stock and fixtures, about £450. Apply, "Cortex," c/o Edwards 157 Queen Victoria Street.

PLYMOUTH.—For immediate sale, a good-class Light Retail, Dispensing, and Prescribing Business; returns are between £700 to £800; has been in same hands many years, and, retiring from business, owner will give good introduction, low rent; price £500. "Camphoid," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

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Messrs. CROCKER & CO.

Trade Valuers, Transfer Agents, and Accountants,
15 WALBROOK, E.C.,

Having at the present time a large number of inquiries for good-class Country Businesses, they invite communications from intending vendors. **NO CHARGE IS MADE UNLESS A SALE IS EFFECTED**, and particulars of businesses are given to those only having the required amount of capital to invest, thus guaranteeing only *bona-fide* inquiries and obviating publicity. **VALUATIONS MADE FOR PROBATE OR TRANSFER, BOOKS AUDITED AND BALANCE-SHEETS PREPARED IN ANY PART OF THE UNITED KINGDOM.** After many years' practical experience in the Wholesale and Retail Drug Trade, C. & Co. can offer valuable assistance and advice in the conduct of business of a confidential nature. References permitted to past and present Clients, also to the Leading Wholesale Houses in the Trade.

YORKSHIRE.—Light Retail and Prescribing; very profitable trade; no opposition; returns £330; rent £18; price £200.

MIDDLESEX.—Retail Business; returning over £300, with a net profit of £140; nice house with private entrance; price £180; worth attention.

NORTH OF ENGLAND.—First-class Dispensing trade; returns £3,000; price £2,500; fine, handsome pharmacy with good residence.

SOUTH COAST.—Fashionable health resort; good-class Dispensing trade; price £750; stock and fixtures worth the money.

MIDLANDS.—Good sound country trade; returns £1,100; price £1,000; several first-class proprietary articles in excellent demand.

LINCOLNSHIRE.—Family Retail, Prescribing, and Dispensing, with good Proprietaries; fine double-fronted corner shop; returns £600; price £450.

CHESHIRE.—Death vacancy; old-established Dispensing trade; returns £1,100 under management; price £900; very handsome Pharmacy, with exceptional good residence.

LONDON, W.—Family Retail and Dispensing; returns £900; price £700; over 2,000 new prescriptions copied last year.

SEASIDE.—Good-class Retail and Dispensing trade; returns £600; plenty of scope for increase; price £400; large and convenient house.

NO CHARGE TO PURCHASERS.

VALUATIONS A SPECIALITY TERMS ON APPLICATION

BUSINESSES FOR DISPOSAL—Continued.

TO Chemists and Dentists.—Suitable to an energetic man; nice shop, well fitted and stocked; rent £40; let off £30; reason for leaving, old age and infirmity; price £120. Apply, "Chemist," 14 Commerce Road, Wood Green, N.

GENUINE Retail, Dispensing, and Prescribing Business; large double-fronted shop, well fitted and stocked; returns £875; good prices obtained; vendor having other business to attend to will sell for £520, about value of stock and fixtures only; rent £55; full particulars on application, with references. Apply, Newcombe, Bedminster, Bristol.

ISLE OF THANET (Kent).—For immediate sale, a very old established Light Retail and Dispensing Business, held by owner 33 years; returns £700; full prices charged; can be much increased; good house in the principal street; owner retiring; price only £350. "Carbon," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

READY money Retail, Prescribing, and Dispensing Business for disposal near London; well-fitted shop, good stock; returns over £300; capable of increase; good house, private entrance bath-room, garden; satisfactory reasons for sale; to immediate purchaser at a sacrifice. "Lyric," Office of THE CHEMIST AND DRUGGIST, 42 Cannon St., E.C.

TO CHEMISTS.—Advertiser wishes to transfer valuable lease and goodwill of very old-established Business of Pharmaceutical Chemist with Stock, Fixtures, and good Proprietary articles. Situated in best part of Moorgate Street; no opposition; modern front; sum required, about £1,000. Apply to A. J. Over, Solicitor, 56 Coleman Street, Bank.

N.—A thoroughly genuine old-established Retail and Prescribing Business, several good Proprietary lines, for immediate disposal on easy terms; shop well fitted and stocked; convenient house, with long garden; rent low; present returns, over £8 weekly; capable of considerable increase. 49/13, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

MESSRS. ANDROS & CO., Chemists' Transfer Agents, 62 Ship Street, Brighton, have for disposal the following Businesses:—**Lancs:** Prescribing and Dispensing; corner premises; established 30 years; 9-roomed house; returns £500; price £340. **Middlesex:** Prescribing and Dispensing; good shop and house, private entrance; returns over £340; price £200. **Norfolk:** old-established Business; good shop and 7 rooms; rent £45; returns £750; price £650. **London, S.E. (near station):** Light Retail and Prescribing; well-fitted shop, good house and stabling; established 40 years; rent £65; price £300. **Hants:** Light Retail and Prescribing; small house, garden and drug store; price only £350. For full particulars apply as above. Please state requirements.

BUSINESSES WANTED.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

WANTED, a genuine Chemist's Business returning from £800 to £1,200. All communications strictly confidential to W. Sadler, 8 Alkham Road, Stoke Newington, N.

WANTED at once, for prompt cash, a genuine Light Retail and Dispensing Business, returning about £1,200; a good 8-roomed house indispensable, with garden preferred; particulars will be received in strict confidence. "Pharmacy," c/o Evans, Lescher & Webb, 60 Bartholomew Close, London.

ADVERTISER who has just sold his business in London, is very anxious to meet with a good and reliable business in the provinces; has capital up to nearly £1,500, but would not object to a smaller business if with scope for development. "Pharmacist," c/o Messrs Meggeson, 14 Miles Lane, London.

WANTED, in Southampton or suburb, a good Cash Retail and Prescribing Business, in a busy, ready-money locality, suitable for an open Surgeon's Retail; house must have side entrance, in order to let off; wholesale references given and required. 40/22, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, Light Retail Dispensing and Prescribing Business, in good country town or large village; no objection to mixed or neglected business if scope for improvement, returning £500 to £700; Midlands or south-west, and with a garden preferred. "Cash," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, to purchase a genuine Dispensing and General Retail Business giving £300 to £400 net profit, country or suburban preferred, or Partnership with view to succession, by a Pharmaceutical Chemist and qualified Dentist; cash ready. Apply, in first instance, "Pharmacist," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

PARTNERSHIPS.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

A QUALIFIED Chemist, with long experience in both Wholesale and Retail, seeks to hear of a Working Partnership in an old-established Wholesale House, where services would be accepted to some extent in lieu of capital; £2,000 only at command at present. Only old-established firms requiring an active, experienced man need reply, in confidence, to "Arceca," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

FOR SALE.

FOR disposal, Druggist's Sundry Stock and Business, with several Proprietaries; terms moderate. Address, "Chemicus," c/o 15 Penley's Grove Street, York.

TO Chemists contemplating opening a fresh business—For Disposal, at once, fixtures complete and stock of a large Chemist's Shop, just closed; to be sold at a great sacrifice, about £50 or £60. Apply, Messrs. Alder & Wright, Auctioneers, 4 Church Road, Upper Norwood.

MUST be Sold.—The entire Stock and Fixtures; 2 glass-fronted counters, 4 mahogany-fronted glass-labelled and numbered drawers, Glass Cases and Cupboards, Olive-green Jars, Bottles, &c.; suitable for shop 18 feet by 20. Nicholson, All Saints, Norwich.

TO be sold immediately, the fixtures and fittings of four first-class Chemists' Shops, including several ranges of mahogany-fronted drawers, fitted with glass labels; six massive mahogany dispensing-screens with embossed mirror in centre; ten mahogany bent-glass counter-cases, fitted with sliding trays and serving-shelf above; six mahogany counters, fitted with drawers; also a large quantity of wall-cases. To be sold at a vast sacrifice, wanting room. Edwards & Fothergill, Old Haymarket, Liverpool.

TO LET.

CHEMICAL Laboratory.—City of London, to be let or sold; central situation; would suit either a Teacher of Chemistry or Analyst. Apply, Orridge & Co., 32 Ludgate Hill, E.C.

LEEDS (Briggate).—To Let, in the very centre of this populous town, stockrooms, from £1 per month; free from taxes. Further particulars, write Mosley, Rent Collector, 6 Wormald Row.

WORKS to be let, 200 yards from Guide Bridge, lately used as Paint and Colour works, but suitable for other purposes, with Offices, Store-rooms, Stabling, Boiler and Engine, contents 1,300 yards; rent £70. Pier-on, 2, Rochdale Road, Manchester.

SITUATIONS OPEN.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

R. E. CHARLES, Chemist, Breeon, wants a Junior, about 19 or 20; state age, experience, references, and salary required.

JUNIOR or Improver, for Light Retail. Send usual particulars, with reference and photo, to Thos. Hodgkinson, Chemist, Derby.

WANTED, an Assistant, about 22 years old, with Minor qualification. Apply, with full particulars, to Galsayer & Kemp, Brighton.

WANTED, an Assistant, for a few hours in the evening only. Apply, personally or by letter, to W. Wilson, 281 Brixton Road, S.W.

JUNIOR or Improver wanted, for Country business. Apply, E. Handford & Son, Chemists, 1 High Street, Torrington, North Devon.

JUNIOR Assistant (indoors), aged about 21. Apply, stating age, height, salary required, and references, to J. Munday, Chemist, Tiverton.

WANTED, Assistant, good Junior, for Dispensing and Light Retail. Reply, with full particulars, to T. & Sons, 10 Magdalen Street, Oxford.

OUTDOORS.—Wanted, an active Junior, for quiet Retail business; aged 19 to 21; must be tall. Apply, Blake Benjamin, Chemist, Penarth.

WANTED, early in February, qualified Senior Assistant used to first-class Counter work. Apply with usual particulars to A. Duncan, Chemist, Bournemouth.

QUALIFIED Assistant wanted, at once, for good-class business. Apply, with full particulars, stating salary, to Mr. F. J. Gibson, Chemist, Wolverhampton.

WANTED, a Junior Assistant; aged about 21; outdoors; personal application preferred. Apply, Brooks' Drug Stores, corner of High Street, Broadway, Deptford.

INVOICE Clerk wanted, at once; must be very quick and accurate in carrying out invoices. Apply, stating experience and salary required, to R. Sumner & Co., Wholesale Druggists, Liverpool.

WANTED, a pushing Young Man for Drug Stores; qualified; abstainer preferred, but not absolutely necessary. References and salary required to T. G. Milburn, 27 Park Grove, Hull.

WANTED, in the beginning of February, a youth who has been 12 or 18 months in the business (time allowed for study). Apply, G. L. Douthwaite, Chemist and Surgeon-Dentist, Rhosymedre, Ruabon.

AT ONCE.—An Assistant, about 24 years of age, accustomed to a good-class Retail and Dispensing Business. Apply, stating full particulars as to age, height, salary, and references, to Tenison Smith, R. de, I.W.

WANTED, Manager; qualified; married; to live on premises; good Prescriber, Tooth Extractor; must understand Oil and Paint Business; suitable man would find a permanent and improving position. Pare, Bolton.

QUALIFIED Assistant, about 25, in good Dispensing and Retail business in University town; indoors; comfortable home. Apply, with all particulars, enclosing photo (to be returned), to Beall & Son, Chemists, Cambridge.

FOR INDIA.—Wanted, a qualified Chemist, Major preferred, aged about 24; single; must be energetic, of good address, and of thorough business habits. Apply by letter, J.R., c/o Messrs. Meggeson & Co., 14 Miles Lane, E.C.

TAYLOR'S DRUG CO. (LIM.), of London, Leeds, Bradford, Hull, &c., have one or two vacancies for qualified Chemists. For full particulars apply to the Secretary, Taylor's Drug Co. (Limited), 18 Guildford Street, Leeds.

WANTED, an active Junior for a Country Retail; indoors; hours easy. Apply, stating full particulars as to age, height, experience, salary, when disengaged, with references and photo, to E. Jenkins, Chemist, Faversham, Kent.

WANTED immediately, a good Junior Assistant not under 20 years; indoors; Light trade; time for study. Apply, stating previous experience, references, salary required, enclosing c.v., to W. Jacobs, Medical Hall, Guildford, Surrey.

STRAITS SETTLEMENTS.—Wanted, a General Assistant; must have passed Minor Examination of Pharmaceutical Society; 4 years' agreement; aged 20 to 26; passage paid. For particulars apply, A. Durant & Co., 32 Gresham Street, E.C.

WANTED, an Assistant outdoors, aged about 22, with Minor qualification preferred; active and reliable, with obliging business habits. Send full particulars and references, with photo, to E. W. Wilby, Chemist, 83 Upper Centur Street, Leicester.

SITUATIONS OPEN—Continued.

WANTED, a Dispenser (outdoors); references required. Apply, "Surgeon," 186 Amhurst Road, Hackney Downs, N.E.

AT once, Senior Assistant as Dispenser; qualified and of good experience; 2 kept. Apply, personally, if possible, to Babb (late Baily), Pharmaceutical Chemist, Hampstead, N.W.

WANTED, at once, Dispenser; qualified; outdoors; hours 9 to 7; no Sunday duty. Apply by letter only, stating full particulars and salary required, to "Chemist," Haymarket Stores, 28 Haymarket, S.W.

QUALIFIED Manager for Branch, also qualified Assistant required; must be steady and obliging and give undoubted references. Apply (enclosing photo if convenient), stating age and usual particulars, to B. Messrs. Newbery, 1 King Edward Street, E.C.

AS Manager for Branch (Dispensing and Prescribing); a reliable, qualified man with or without view to purchase; Extractor preferred; good references required. Apply, enclosing photo with all particulars, to "Rex," care of Messrs. Evans, Sons & Co., Liverpool.

WANTED, qualified outdoor Assistant, to manage a Branch; one whose character will bear the strictest investigation. Apply, enclosing photo, stating age, height, and salary required, to Z. Messrs. Hodgkinson, Prestons & King, 81 Bishopsgate Street, London, E.C.

QUALIFIED Junior Assistant for seaside town on South Coast; unmarried; hours moderate; state age, height, salary (outdoors), when disengaged, and enclose photo (to be returned). Apply to M., c/o Messrs. Newbery & Sons, 1 King Edward Street, Newgate Street, E.C.

ASSISTANT; abstainer; indoors; about the 19th; aged about 21; no time can be spared except the usual afternoon and evening weekly; salary £30. Apply personally, or enclosing carte, stating age, height, and reference, to Mr. Taplin, 91 Hampstead Road, London, N.W. One only kept.

BRANCH Manager, by the end of January; Minor qualification; not under 25; must be a first-class Dispenser, and have had experience in good-class trade; in or out doors. Apply, enclosing photo, stating salary required, and all particulars, to A. Blackburn, 270 Moseley Road, Birmingham.

TRAVELLER wanted by an old-established firm of Essence Distillers in the North of England; one having a connection amongst Aerated Water Makers and Confectioners in London or the South of England preferred. Apply, 41/9, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

JUNIOR Assistant; immediately; gentlemanly, active, and reliable; one just completed his full term of apprenticeship in a good house of business treated with; send age and reference, and state salary required; enclose photo, which will be returned. T. Linay, Pharmacy, 2 Fernhead Road, St. Peter's Park, W.

JUNIOR Assistant wanted for brisk Mixed Country business; must be energetic, willing, obliging, and not afraid of work; outdoors preferred; state age, height, experience, salary required, if used to Extracting, reference, and enclosing photo, if convenient. J. Richardson, Chemist, Hatfield, near Manchester.

SOUTH London.—Qualified Assistant wanted; actual working hours about 62 per week, one full day off per week allowed; state age, height, salary (outdoors), when disengaged, and enclose photo; married in preference; good opportunity for advancement. I. B. P., c/o Burgoyne & Co., 16 Coleman Street, E.C.

WHOLESALE Drug, Drysaltery, and Oils.—Wanted, a thoroughly energetic man to travel 4 or 5 days a week, remainder of time indoors (Wholesale); experience in travelling absolutely essential; no one need apply who cannot produce satisfactory references both as to character and ability. Particulars, H. S. Hogg, Ulverston.

WANTED, by an old-established firm of Manufacturing Chemists, an active and intelligent Representative with a good knowledge of the Pharmaceutical and Drug trade, Home and Export. Apply by letter, enclosing copies of testimonials, and giving particulars generally, to "Pharmaceutical," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

JUNIOR, about 20 years of age, at once; must be fairly well up, thoroughly trustworthy, willing, and accustomed to middle-class small Light Retail, Dispensing, and Prescribing business; opportunities for study and attending classes, if desired. State age, height, experience, salary (indoors), and full particulars, to W. E. Hayward, Chemist, Birkenhead.

MANAGER (married) required for country; must be qualified and understand Oatle Medicines; abstainer preferred; state family, age, experience, when ready; salary 30s., 35s., and commission, house, gas free; or would transfer on easy terms to an all-round good man. Address, "Midlands, No. 333," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, at the end of January, a thoroughly competent and trustworthy Assistant about 30 years of age; Minor qualification; one accustomed to good-class suburban business; outdoors; no Sunday duty; good references. Apply, stating age, height, experience, and salary required, to W. J., c/o Messrs. Barron, Harveys & Co., Giltspur Street, London.

SITUATIONS WANTED.

1s. for twelve words; 6d. for every six words beyond.

MINOR (24); City or West-end; outdoors. A. P. S., 22 Fordingley, Paddington.

AS Junior; 4½ years' experience in country town; aged 20. J. S. S., Chapel Street, Holsworthy.

ASSISTANT Dispenser (38); experienced; time allowed. R. Howlett, 210 Burdett Road, E.

JUNIOR (21); 5 years' experience; suitable references. "Oortex," 5 Brunswick Terrace, Leeds.

ASSISTANT (23); qualified; good references and experience. Rigby, Chemist, Beechfield, Barnsley.

JUNIOR; 6 years' experience; Manchester preferred; height 5 ft. 9 in. H. J., 57 High Street, Stroud.

SENIOR or Locum; qualified; aged 29; experienced. "Fide," 21 Nelson Street, Greenwich.

ASSISTANT; 23; good references; Yorkshire preferred. E. P. S., 66 Swan Street, Borough, S.E.

JUNIOR; 19½; knowledge of French; South East coast. "Radix," 100 St. Mary Street, Cardiff.

MANAGER; aged 32; abstainer; London preferred (not essential). Arstall, Elizabeth Street, Hyde.

TRAVELLER, experienced, open for part or whole engagement. "Traveller," 9 Broadway, E.C.

GOOD Junior; competent; 8 years' experience; references. "Statin," 68 Walworth Road, London.

MANAGER or Locum-Tenens; qualified; experienced; good references. 41 Rigault Road, Fulham.

MANAGER or Senior; married; Prescriber; qualified. "Associate," 4 Marquis Street, Kirkham, Lancashire.

ASSISTANT; up in first-class Dispensing and Retail; also Extractor. W., 53 Great Marylebone Street, W.

SUNDAY duty, London or suburbs; qualified; good experience. "Chemist," Pelling's Library, West Croydon.

WHOLESALE.—Experienced Clerk desires re-engagement; good references. C. D., 22 Balaic Road, Highbury.

WHOLESALE (not Wet counter); businesslike, trustworthy; highest reference. "Radix," 89 London Wall.

JUNIOR; 5 years' experience; Extractor, Prescriber; Manchester preferred. Taylor, c/o Stephens, Milsbridge.

ASSISTANT; outdoors; tall; Extractor; 4 years last situation. Tate, 100 Edinburgh Road, Walthamstow.

ASSISTANT (outdoor); good knowledge of photography; references. "Alpha," 3 Villa Road, Brixton, S.W.

ASSISTANT or Dispenser; qualified; 7 years' experience; good references. "Chemist," Gleanboro, Dyrnan, Anglesea.

WANTED, an engagement by the day, week, or month; qualified. A. B., 69 Adolphus Street, New Cross, London, S.E.

PART-TIME; Minor student; aged 23; experienced; satisfactory references; disengaged. H. J., 311 Commercial Road, E.

COMPETENT Assistant; good references and experience; Extractor; aged 25. "Specs," 5 Nelson Street, Carlisle.

JUNIOR; 4 years' experience, London or town, where classes are held; good references. Percy Longley, 73 North Street, Leeds.

WAREHOUSEMAN or Stockkeeper; good reference; aged 23. J. Fuller, c/o H. Senior, 88 Norwood Road, London, S.E.

YOUTH (19), well educated, with knowledge of practical Chemistry, seeks situation in Laboratory. J. H., 55 Hornsey Rise, N.

AS Branch Manager or otherwise; qualified; 10 years' London experience; 27. W. L., Oxford Lodge, Buchan Hill, Crawley.

COMPETENT Junior requires engagement for about two months from present date. "Pharmacy," 47 Station Road, Red Hill.

SITUATIONS WANTED—Continued.

TEMPORARY Manager or Senior; qualified; disengaged. "Locum," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

AS Traveller (26); General; connection; West of England, South Coast, and Wales. "Beta," Chemical Co., Stapleton, Bristol.

JUNIOR; aged 18; height 5 ft. 9 in.; 3½ years' experience. G. B., 24 Vavasour Street, Albert Park, Lower Broughton, Manchester.

MINOR Student (Hall qualification) seeks a part-time engagement as Dispenser in London. R. C. T., Aston Villa, Saffron Walden.

AS Junior; aged 20; good references; Retail and Dispensing; Liver pool preferred. R. P. Page, Bank Farm, near Barrow-in-Furness.

AS Junior, in West-end Dispensing Business; qualified; aged 22; height 5 ft. 9 in.; good references. Peet, Tadcaster, Yorkshire.

JUNIOR (20); good Cash or Store business, in or near London preferred; references. "Cortex," 142 Waiwar Road, Nottling Hill, W.

AS Junior; disengaged shortly; good experience; excellent references; in or near Newcastle preferred. C., 187 Linthorpe Road, Middlesborough.

GERMAN Apotheker requires situation; first-class references; quick Dispenser. Riess, 6 Normanton Terrace, Wild Ash Road, East Dulwich.

TRAVELLER, Manager, or Locum-Tenens, by Qualified Chemist, aged 38. H. G., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

EVENING employment wanted (London), near Wills' College, in return for board and lodging. "Assistant," Jenkins, Chemist, Faversham.

WHOLESALE (Wet counter).—Advertiser, aged 34, home or export, desires engagement. "Chemicus," 1 Clouesley Road, Barnsbury, London, N.

JUNIOR (19); in good-class country business (indoors); 4 years' experience; unqualified; abstainer. "Antipyrin," Bates, Chemist, Colchester.

TRAVELLER, with really first-class connection in Eastern, Midland and Northern Counties, desires engagement. "Essence," Gamston, Retford, Notts.

ASSISTANT, in London; Hall qualification; town and country experience; aged 30; outdoors. "Acetum," 43, Trinity Square, London, S.E.

SCOTCHMAN, 7 years' good experience in dispensing, wishes a situation in London; disengaged January 9. Forbes, c/o Thomson, Chemist, Elgin.

ASSISTANT (29), to end of February; qualified; accustomed to first-class Dispensing; town preferred. G. A., Redacre, Mytholmroyd, Manchester.

JUNIOR (22); good-class Dispensing and General experience. London or manufacturing town preferred. "Nemo," 30 High Street, Shrewsbury.

JUNIOR; aged 21; accurate Dispenser; thorough knowledge of Photography; 3 years' experience; disengaged March. "Opti," 24 Page Street, Swansea.

WHOLESALE.—Experienced Counterman seeks employment (wet); could take charge if wanted; good references. C. H. B., 122 Watworth Road, London, S.E.

AS Assistant, for General or Agricultural trade; good all-round experience; aged 42; married; not registered; good references. Hartland, Sowerby Bridge, Yorkshire.

ASSISTANT; Branch; Surgeon's Retail, Dispenser; thorough experience; outdoors; permanent; Extractor; aged 40 Bellamy, 10 Woodville Grove, Mildmay Park, N.

AS Branch Manager; Minor; Feb. 5th; salary and commission; first-class general experience; married; 24. "Phenacol," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

JUNIOR; unqualified; 6 years' experience; aged 21½; tall; good knowledge Veterinary Medicines; disengaged. "Sulphonal," c/o Barre, Stationer, 8 Duke Street Mansions, Grosvenor Square, London.

MANAGING Assistant; aged 24; unqualified; outdoors; 10 years' experience Birmingham, Cardiff, and London; Pharmacy and Dentistry throughout. Malins, Wilton Road, Sparkhill, Birmingham.

JUNIOR (22); disengaged. H., 37 George Street, Luton.

AS Senior or Manager; outdoors; first-class experience. M., 217 Milkwood Road, S.E.

PART-TIME or Dispenser; London; 6 years' experience. Barnes, 6 North Place, Maidenhead.

PART-TIME; Minor; aged 22½; in lieu of lodging; near Otty. "Pills," 46 Duncan Terrace N.

AS Dispenser; unqualified; good references and experience. B., 11 King Henry's Road, N.W.

LOCUM-TENENS or Branch Manager; registered; references. "Esculap," 32 Laurel Grove, Pease.

JUNIOR or Surgeon's Dispenser (20); Extractor; good experience. "Junior," 108 Western Road, Brighton.

MANAGER, qualified, outdoors, or for Branch; married; abstainer; aged 38. L., 85 Lewisham High Road.

AN Improver seeks engagement; 2 years' experience. Harvey, 39 Carlton Grove, Queen's Road, Peckham London.

WHOLESALE; Junior; Wet or Dry Counter; aged 22; 6 years' experience. "Salol," Bloomfield Road, Kingstou-on-Thames.

ASSISTANT or Manager; outdoors; Major; Extractor; good experience. "Assistant," 161 Percy Road, Shepherd's Bush, W.

EVENING Employment by Student, with Chemist or Doctor; good Dispenser and Prescriber; pursuing. Johnson, 84 Hampstead Road, N.W.

DRUGS.—Packer, Wholesale and Export; over 20 years' experience in Casks and Cases. Sparrowhawk, 16 Penton Residences, Pentonville.

SITUATION wanted; aged 24; thoroughly conversant with Patents, Sundries, &c.; London preferred. C. W., 106 Loughborough Road, London, S.W.

ASSISTANT; 24. experienced; quick and pushing Counterman; good Dispenser; town or country; disengaged. "Chemicus," 18 Little Road, Fulham.

AS Manager, or Assistant to Branch, widow, or otherwise; qualified; competent; steady and reliable; best references; disengaged. "Rhei," 23 Florence Road, S.E., London.

WHOLESALE.—Young man requires position as Warehouseman or Sundriesman; good all-round experience, London or provincial. F. Hudson, 238 Now Kent Road, London.

TRAVELLER.—Representative of London firm requires appointment; London and country; excellent references, experience, connection. A. Cockburn, 37 Fortnam Road, N.

A RESPONSIBLE position required, by a qualified man, as General Manager in Manufacturing or Wholesale; possesses full knowledge of Medicated Confectionery. W. I. Clarendon Avenue, Heaton Chapel, Manchester.

A GENTLEMAN, representing a first-class Drug house, and having a good connection in the South and West of England, would be glad to hear of an additional Commission. C. J. R., 22 Cranwich Road, Stamford Hill, N.

WHOLESALE.—Advertiser, aged 26, has had 3 years' experience in large provincial Wholesale house, last half in laboratory, and desires similar engagement in first-class house. Thomas, 8 Harboure Road, Birmingham.

TRAVELLER, with first-class connection among Chemists and others, desires appointment with good house, or commissions; good references. Address, "Trade," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

MANAGER or Assistant; qualified; single; aged 40; height 5 ft. 8 in.; town and country experience; outdoors preferred; salary 2 guineas; at liberty now. "Westward," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

TRAVELLER.—A Gentleman having a very large connection among Wholesale and Retail Chemists, Grocers, and Stores in town and country, will undertake another house on special terms. V. C., at Shelly's Advertising Office, 38 Gracechurch Street, E.C.

EVENING Work, by a qualified man (Minor Exam); as near the West of London as possible; disengaged from 5 p.m.; height 5 feet; aged 28 years; good references and experience, &c. "Student," c/o Mr. T. Martin (S. Maw, Son & Thompson), 7-12 Aldersgate Street, E.C.

SITUATIONS WANTED—Continued.

DISPENSER.—Third-year Student, passed Intermediate (M.B.), wishes to assist a Doctor in the evening; Dispense or Bookkeep; salary, or board and lodging in lieu of same; easy reach of hospital; highest references. J. Pole-Kitson, University College, Gower Street.

A FRENCH Chemist's Assistant, aged 23, 4 years in Paris, 18 months in Germany Switzerland and Germany, wishes to complete his knowledge of English and of the English Pharmacy in London; salary moderate; entry April 1. Apply to Louis Bardonnet, Apotheke Moser, Metz, Germany.

To Chemists and Druggists (Wholesale).—Wanted employment, by a well-educated young man with experience in the Drug Market, Laboratory, Manufacture of Essences, and general business; only moderate salary required. Apply, by letter, to J. F. P., 8 Trafalgar Square, Brompton, S.W.

MISCELLANEOUS.

Special charges are made for Advertisements under this heading which can be obtained on application.

CAUTION.

IT has come to our knowledge that someone is calling on the Wholesale Houses in London, and obtaining cash or goods on the representation that he is Mr. McMaster, jun., from our house. We desire to warn the Trade against this person, as he is an impostor; no one representing us being in London at present. 121 Capel Street, Dublin. McMASTER, HODGSON & CO.

THE BOTANICAL STUDENT'S SET OF MICROSCOPIC SLIDES Illustrating the structure of Stems, Roots, Leaves, the cellular arrangement of Exogenous, Endogenous, and Aerenchymatous Plants, structure of Petals, Anthers, Pollen grains and Ovary, Nuclei of Cells, Stomata, Cystoliths, Raphides, Annular Rings, Spiral, Pitted, Scleriform, and Laticiferous Vessels. Price complete, in elegant folding case, 12/-, free by post. Slide showing structure of Exogen, Endogen, and Aerenchymatous. Section of Lily Bud, Petals, Anthers, Pollen, Ovary, &c., in situ, 1/-, Post Free from Edwin Terry, F.R.M.S., 41 Nightingale Lane, Balham, S.W. [2]

THE ART OF DISPENSING.

This popular work treats of all the manipulative details involved in compounding medical prescriptions, special attention being given to dispensing difficulties, and to notes on new remedies.

The Book contains 280 pages. Price 3s. 6d.; by post, 3s. 10d.

THE HANDY-BOOK OF MEDICINE STAMP DUTY.

This work has been written for us by Mr. E. N. Alpe, of the Solicitor's Department, Inland Revenue Office, Somerset House, who has had a wide experience in, and intimate knowledge of, the administration of the Acts which regulate the sale of proprietary medicines.

The most recent modifications in the law and practice relating to medicine stamp-duty are incorporated in a Supplement which has been added to this work.

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A MANUAL OF PHARMACEUTICAL TESTING.

Comprising simple instructions for the testing of the Chemicals of the British Pharmacopœia, &c., with such materials and appliances as are in common use at the dispensing counter. By BARNARD S. PROCTOR, F.I.C.

The Book contains 176 pages. Price 2s. 6d.; by post, 2s. 9d.

Published at the Offices of
"THE CHEMIST AND DRUGGIST," 42 CANNON STREET, LONDON, E.C.

This sample had to be broken small. Works steadily. Magnificent colour.

19. The Sankey Sugar Company, Earlestown, near Newton-le-Willows.—*Small grain* (pure cane sugar). Works steadily. Fine bright colour.

20. S. S. C.—*No. 1 crystals*. As 19.

21. S. S. C.—*No. 2 crystals* (pure cane sugar). As 19.

22. S. S. C.—*Granulated* (pure cane sugar). Very small, white, irregular crystals. Requires constant stirring at first to prevent it carbouising; afterwards works steadily. Good full colour.

23. S. S. C.—*Castor*. This is about a No. 40 powder. Very white. Swells up considerably at first, then works steadily. Handsome colour.

24. S. S. C.—*Pulver*. As fine as flour, and beautifully white. Works steadily. Good full colour.

25. Messrs. Garduer & Thomas, Bristol (Dutch).—*S. & T. gran*. Works steadily. Good colour.

26. G. & T.—*R. S. crystals*. Rather large crystals. Look white on blue paper, but have a blue cast when seen on white paper. Works steadily. Good colour.

27. G. & T.—*W. S. R. crystals*. Larger crystals than 26. Same remark applies as to appearance on paper. Very troublesome. Good colour.

28. Messrs. Geo. Crossfield & Co, Stanley Street, Liverpool (direct).—1. *Specially manufactured for mineral-water manufacturers*. White, very small crystal. Works steadily. Good colour.

29. G. C. & Co.—2. *Coarse granulated for household use*. Rather dull-looking white. Works steadily. Good colour.

30. G. C. & Co.—3. *Medium sized white crystals*. Works steadily. Good colour.

31. G. C. & Co.—4. *Small white crystal*. Used by fruit-preservers, &c. Works steadily. Good colour.

32. G. C. & Co.—5. *Smaller crystal than 31*. Not quite white. Troublesome; inclined to froth. A good full-bodied colour.

33. G. C. & Co.—6. *Moist sugar used by brewers*. Lumpy; dull pale brown. Very troublesome, continually frothing, and requiring heat to be withdrawn. Muddy-looking colour.

Having made all the caramels, the next thing to be done was to test them. For this purpose the following were used:—Acid, acetic, fort.: acid, citric, 1 in 2; acid, tartaric, 1 in 2; acid, phosphoric, 1:500; phospho-citric.

PHOSPHORIC-ACID TEST.

To apply this test, drop 3 or 4 drops of caramel into a clean test-tube; add about 1 drin. water; shake until thoroughly mixed. Add 3 or 4 drops of acid; shake well, nearly fill the test-tube with water, shake again, and note the result.

The results with the caramel from the above-mentioned sugars were as follows:—Nos. 1, 2, 6, 7, 12 and 16 to 32 were not changed on the addition of any of the acids to the clear solution. No. 3 was precipitated by each of the acids, especially with phosphoric and phospho-citric acids; No. 14 was similar, but not so bad. Nos. 4, 5, 8, 10, 11, 13 and 33 were not affected by acetic acid, but by each of the others; No. 9 was not affected by acetic and citric acids, and No. 15 stood the test of tartaric acid in addition.

In these experiments the four acids—acetic, citric, tartaric, and phospho-citric—were used, because one or other of them is used by mineral-water makers, phosphoric acid being added to the number upon fuding the superiority of phospho-citric over either citric or tartaric, the inference being that to the phosphoric acid alone of phospho-citric was due its delicacy as a test. This supposition was subsequently found to be correct.

If the caramel under examination will not stand this test it should be rejected. On the other hand, if it remains bright, pass on to the next test, which is for

STAYING-POWER OF COLOUR,

and is made as follow:—Take two $\frac{1}{2}$ -pint bottles, preferably of white glass, in order to note any change the more readily. Into each bottle drop 5 drops of colour from a pipette; add to one bottle $\frac{1}{2}$ pint water. To the other add $\frac{1}{2}$ pint of water, 5 minims of sulphurous acid, and 15 minims of phosphoric acid. Allow to stand for twelve hours. If only a trifling change takes place the colour so tested may be used with

confidence, and without any danger of a future decomposition being set up.

By way of ascertaining the smallest possible quantity of caramel made from raw cane sugar which could be detected in the presence of a large preponderance of that made from refined cane sugar, the following three experiments were tried:—

Raw		Refined		Result
25 per cent.	..	75 per cent.	..	Immediate
12.5 "	..	87.5 "	..	In three hours
6.25 "	..	93.75 "	..	In twelve hours

In less proportion than this the reaction becomes indistinct. Caramel made from grape sugar, if mixed in only very small quantity with that made from refined cane sugar, can be readily detected.

A small batch of syrup was next made from raw cane sugar, filtered, and tested with phosphoric acid. In the cold, on warming gently, boiling, or prolonged boiling—negative result. This same batch was then evaporated down and caramelised. Upon testing now with phosphoric acid a precipitate was at once obtained.

This seems to point to something contained in the raw cane sugar which undergoes a change (on caramelising) in its molecular constitution. Most of the sugars examined would be suitable for making caramel, but the most satisfactory are Nos. 1, 6, 7, 12, 18, 24, and 32. It would be useless for me to suggest the most eligible, as what would suit one might not be approved by another; so much depends on the requirements of a particular class of trade. In conclusion, I take this opportunity of thanking those manufacturers who so kindly forwarded samples, and who thus assisted very materially in enabling me to prepare this paper. To my friend Mr. Henry Meadows, pharmaceutical chemist, of this town, I am also indebted for assistance.

A SAMPLE-CLERK.

JEM B—— is a wag. A joke to Jem is both food and raiment, and whenever and wherever there is an opening for fun he has it. Jem was recently in a drug-store, when a youth, apparently from the "mounting," entered the store and at once accosted Jem, stating that he was in search of a job. "What kind of a job?" inquired the wag. "Oh, a'most anything. I want to git a kind of a ginteel job; I'm tired o' farmin' an' kin turn my hand to most anything." "Well, we want a mau—a good, strong, healthy man—as sample-clerk." "What's the wages?" "Wages are good. We pay \$1,000 to a man in that situation." "What's a fellow have to do?" "Oh, merely to test the medicines—that's all. It requires a stout man, one of good constitution, and after he gets used to it he doesn't mind it. You see, we are very particular about the quality of our medicines, and before we sell any we test every parcel. You would be required to take, say, about six or seven ounces of castor oil some days, with a few doses of rhubarb, aloes, croton oil, and similar preparations. Some days you would not be required to take anything; but as a general thing you can count upon, say, from six to ten doses of something daily. As to the work, that does not amount to much; the testing department would be the principal labour required of you, and, as I said before, it requires a person of very healthy organisation to endure it; but you look hearty, and I guess you would suit us. That young man," pointing to a very pale-faced, slim-looking youth who happened to be present, "has filled the post for the past two weeks, but he is hardly stout enough to stand it. We should like to have you take right hold, if you are ready, and if you say so we'll begin to-day. Here's a new barrel of castor oil just come in. I'll go and draw an ounce——" Here Verdant, who had been gazing intently upon the slim youth, interrupted him with—"N-uo, no; I g-u-ess not—not to-day, anyhow! I'll go down and see my aunt, and ef I c'lude to come I'll come up ter-morrer an' let you know." As he did not return it is to be supposed he considered the work too hard.—*Handysides' Journal*.

Practical Notes and Formulae.

SALOL GLYCERINE.

Salol	3j.
Vaseline	3ix.

Melt the vaseline and dissolve the salol in it, stirring constantly until cold.

Mr. A. Suchomel says this is a good thing for the hands, lips, and inflamed skin.

PRIZE FORMULÆ FOR POWDER-DENTIFRICES.

For the following formulæ the *Pharmaceutical Record* has awarded a prize to Mr. C. O. Ingvaldstad:—

Columbian Dentifrice.

Carbonate of calcium, precipitated ..	3viij.
Castile soap, powdered	3j.
Cuttle-fish bone, powdered	3iv.
Orris-root, powdered	3iv.
Oil of wintergreen	3ss.
Prepared colouring	3ss.

Mix the prepared colouring with the precipitated chalk by trituration, sift through an ordinary sieve, and set in a warm place to dry. Mix the soap, fish-bone, and orris-root; to this add the oil of wintergreen and lastly the coloured chalk. Run through a fine bolting-cloth.

Prepared Colouring.

Carmine, No. 40	gr. viiss.
Solution of ammonia	3ij.
Water	3ij.

Triturate the carmine with the ammonia solution until dissolved or nearly so; add the water, and filter.

Myrrh Dentifrice.

Carbonate of calcium, precipitated ..	3iv.
Myrrh, powdered	3iv.
Castile soap, powdered	3iv.
Orris-root, powdered	3iv.
Oil of peppermint	sufficient to flavour.

M.

Peerless Record Dentifrice.

Carbonate of calcium, precipitated ..	750 grs.
Carbonate of magnesia	28 "
Borate of soda, powdered	30 "
Almond soda, powdered	250 "
Orris-root, powdered	76 "
Thymol, powdered	1 "
Camphor	5 "
Oil of peppermint	50 drops
Oil of cloves	25 "
Oil of lemon	25 "
Oil of eucalyptus	25 "
Creosote	10 "

Dissolve the thymol and camphor in sufficient alcohol to effect solution, and add to the previously well-mixed powders; then add the rest of the ingredients, and mix well together.

A LICE AND GAPE CURE FOR POULTRY.

DR. A. SPAULDING informs the *Fancier's Journal* that the following is a thoroughly effectual cure for lice and gapes in poultry:—Slake $\frac{1}{2}$ bushel of lime, and when cold mix with it 10 lbs. of sulphur and 1 oz. of carbolic acid. After sweeping out the hen-house drive out all the birds, close all the doors and windows, and begin at the further end and walk backward, scattering the mixture freely all over the floor and through the air, on to the perches and into the nests, everywhere thoroughly—after which a dense cloud of medicated dust will hang suspended throughout the whole interior of the house. Gradually it settles everywhere, in every crack and crevice, and wherever it reaches a hen-louse or other insect he retires from business permanently. If the chickens have roup, leave them in the house and let them stem the storm—it will not kill nor hurt them, but the sneezing will be terrific, and every particle of mucus that has accumulated in the air-passages and throat will be expelled, and the medicated dust will reach every portion of the membrane and cure it too. But gapes—that is the deadliest shot on gapes one could imagine. It kills the worms in the air-passages and makes the chicken cough them up, and so cures the case at once.

CASCARA SAGRADA CORDIAL.

The following is Dr. Dujardin-Beaumetz's recipe for this cordial:—

Fluid extract of cascara sagrada ..	3iij.
Glycerine	3iij.
Oil of orange	mvj.
Oil of cinnamon	viij.
Spirit	3viij.
Syrup	3x.
Water to	viij.

Mix.

Dose: An ounce or more.

TINCTURE OF STROPHANTHUS.

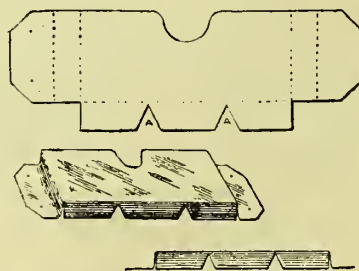
DR. SQUIBB has recommended that strophanthus-seed should be mixed with broken glass before depriving it of its oil, and, according to Mr. Julius A. Koch, an American pharmacist, glass amounting to half the weight of the seed is the proper quantity. He thus agrees with Dr. Squibb. Petroleum ether is recommended in place of ethylic ether, but it appears to have no advantage other than the difference in price. We may also point out that it is exceedingly difficult to get rid of the last traces of petroleum ether, a rather pleasant odour or perfume remaining behind; and we should expect to find this impart a characteristic to the strophanthus which is not *sui generis*.

WAX AS A PILL-EXCIPIENT.

THE addition of wax to pills containing volatile oils, creosote, &c., has been more or less condemned on the ground that pills prepared in this way pass through the alimentary canal in an unchanged condition. Hager (*Pharm. Zeit.* and *Pharm. Era*) says that the wax pills are not only disintegrated by the combined action of the bodily warmth and movement of the intestines, but in the smaller intestines the wax undergoes the same changes as other fatty bodies. The stomach temperature is 40° C. (104° F.), that of the body 37.5° C., and the melting-point of the mixture of two parts wax and one of volatile oil was 35° C., which demonstrated clearly that pills made with wax are miscible with a stomach compound when heated to the stomach temperature. If the pills are massed with an absorbing powder—such as althæa—separation of the oil readily ensues in the stomach, and the wax passes into the intestines, where it becomes adjusted with other fatty bodies.

PLAN FOR HOLDING SLIP-LABELS.

MR. FRANK T. GREEN suggests this in the *Pacific Druggist*. It is to hold ordinary slip-labels, such as we use to label salts, senna, chamomiles, borax, alum, &c., in the drawers containing the drugs. The device is simply a tin strip bent like a pocket. This is tacked on the upper left-hand corner of the drawer, and holds the labels for each drawer. Put the labels upside down and gummed side out. If borax is taken from a drawer, it will be labelled "borax," &c. A reduced pattern is shown in the illustration. By



proportionally enlarging the above pattern so that it will be 5 inches long by 2 $\frac{3}{4}$ inches wide, and then bending on the dotted lines, the tin pocket is formed. The V-shaped cuts marked "A" are to allow the contents of drawer—alum, &c.—to drop out if it should happen to fall in while filling the drawer. A small label on the drawer giving cost, selling price per lb., per $\frac{1}{2}$ -lb., and per 1-oz. lots, would complete the arrangement.

Medical Gleanings.

OREXIN STILL GOOD.

THE *British Medical Journal* reports (Epitomy page 51) that Dr. Rizzi, an Italian physician is of the belief that orexin may be of real good in certain cases of failure of appetite. He has found that the drug caused the appearance of a keen sense of hunger, and produced increase both of the secretory energy and of the peristaltic movements of the stomach.

BHUPHALI FOR GONORRHOEA.

BHUPHALI is an Indian drug (*Corchoris fascicularis*) which Dr. R. P. Banerjee, a medical officer, at Pachbadra, Rajputana, recommends in the treatment of gonorrhoea. A mucilage is made of the bhuphali, and 2-drachm doses of this, along with as much simple syrup, are given six times a day. At the same time a 3-grain belladonna suppository is used four times a day. The results were good, the cases progressing well, and subsequently were cured. Copaiba was not so effective.

PERNICIOUS ANÆMIA.

DR. G. A. GIBSON, of the Edinburgh Royal Infirmary, recently communicated to the Medico-Chirurgical Society there a paper on the antiseptic treatment of pernicious anæmia, which is printed in the *Edinburgh Medical Journal* for October. The antiseptic used was beta-naphthol, 2 grains twice or thrice a day, and in a large number of cases improvement was extremely rapid when iron had been used before. Dr. Gibson finds that irritation is sometimes caused by the beta-naphthol, and to prevent this the best means of administration consists in combining the antiseptic with some bismuth preparation, such as the salicylate.

DERMATOL INTERNALLY.

THE good effects resulting from the external use of dermatol (bismuth subgallate) as an astringent and antiseptic has led Colosanti and Dutto to employ the drug in several internal diseases, says the *Therapist*. It was administered for diarrhoea, in doses of 30 to 90 grains *pro die*, either in single powders of 4 to 8 grains each, or mixed with 1 to 1½ grain of opium powder if the diarrhoea was accompanied with much abdominal pain. The results were on the whole very satisfactory, the diarrhoea generally ceasing within twenty-four hours.

IRON IN DIARRHOEA.

DR. WILLIAM STANWELL, of Sunderland, informs the *Lancet* that for some time he has treated with ammonio-citrate of iron, or Blaud's pill, a large number of cases of infantile diarrhoea, in many cases apparently due to defective sanitation, of irritative diarrhoea, and some of tubercular diarrhoea by this means, and with almost unvarying success. The rapidity with which the offensive smell of the motions disappears has exceeded all expectations. The writer insists that an astringent iron salt is not necessary. That is so; in fact, ferrous sulphate has been long and successfully used for infantile diarrhoea.

SOLANUM JACQUINII IN RHEUMATISM.

DR. BANERJEE writes to the *Indian Medical Record* upon the use of this drug in the treatment of articular rheumatism. The plant is a biennial trailing herb, which grows all over India as a weed. It is much used by the natives of India, and is very popular with them. It has marked diaphoretic and expectorant properties. For articular rheumatism Dr. Banerjee employed the drug as poultices made out of bruised leaves and stalks, and internally a warm decoction with ginger was given in 1 to 3 oz. doses three or four times a day. Profuse perspiration invariably resulted; acute symptoms in some cases subsided in three days, and the pain and tenderness of the joints abated within a fortnight. Some cases were cured within a month, but others were not affected at all. Some of the patients showed great exhaustion under its influence. Male patients bore it well. Dr. Banerjee urges upon medical men in India to give this drug a trial. It is decidedly encouraging to see signs of awakened interest in Indian remedies, which are both numerous and valuable.

CHAMPAGNE AND DIABETES.

DR. CLIFFORD MITCHELL reports to the *Hahnemannian Monthly* that a healthy person may drink sweet champagne, and yet void urine destitute of sugar. Further experiments which he has made with diabetic patients showed that the urine contained sugar before champagne was taken, and none after. So that on the whole the champagne test is not very reliable except very careful precautions are taken.

WHOOPIING-COUGH MIXTURE.

Creosote	..	..	..	..	gr. iv.
Sulphonal	..	..	..	..	gr. iij.
Syrup of tolu	..	..	..	..	℥iv.

Dissolve and mix.

Dose: A teaspoonful of this is to be taken every three hours.

This is a German prescription. We quote it from *Therapeutische Monatshefte*.

TREATMENT OF CHLOROSIS.

BUNGE, HAMBURGER, and others state that inorganic compounds of iron are not absorbed by the alimentary canal. Bunge considers that the utility of iron salts in chlorosis is due to their forming an insoluble sulphide, and this allows the organic iron compounds (hæmatogen) to be absorbed, which would otherwise be destroyed by putrefaction processes. Bunge also lays stress on the antiseptic action of gastric juice. Dr. Hale White in a communication to Guy's Hospital reports, describes five cases which were, therefore, treated with hydrochloric acid. The results were negative, or at any rate the improvement was not greater than occurs when the treatment is simply rest with good food. They, however, rapidly improved on treatment with sulphate of iron.

APPLICATIONS FOR BURNS.

A GERMAN hospital surgeon recommends (*Münch. Med. Woch.*) the following:—

Linseed oil	..	..	..	..	℥iv.
Lime-water	..	..	..	..	℥iv.
Thymol..	..	..	..	..	gr. vj.

Dissolve the thymol in the oil before adding the lime-water.

First wash the wound with lukewarm boric lotion, dry with absorbent cotton gauze, and apply the liniment; at the end of the second week dress the wound with the following ointment:—

Bismuth subnitrate	..	..	..	..	℥ij.
Boric acid	..	..	..	..	℥j.
Lanoline	..	..	..	..	℥ij.
Olive oil	..	..	..	..	℥ss.

Mix.

C. CHLORODYNE.

THIS is the name given at the Walajabad Mission Dispensary for a chlorodyne much used there in cholera cases (*Calcutta Medical Reporter*). The formula is:—

Spt. menthae pip.	..	..	..	..	℥ij.
„ camph.	..	..	..	..	℥ij.
„ chloroform.	..	..	..	..	℥ij.
Tinct. capsici	..	..	..	..	℥ij.
„ zingib.	..	..	..	..	℥ij.
„ catechu	..	..	..	..	℥vi.
„ digitalis	..	..	..	..	℥j.
Acid. hydrocyanic. dil.	..	..	..	..	℥ij.
Glycerini	..	..	..	..	℥ij.
Spt. vini rect.	..	..	..	..	℥ij.

M.

℥xxx. in ℥j. of water every fifteen minutes, until vomiting and purging stop.

When the cases come, Dr. W. Walker states that treatment is begun at once with 20 drops of the chlorodyne, in a teaspoonful of water, and if necessary the same amount is given every fifteen minutes; but it is seldom found that more than one or two doses are required. At the same time the usual specific treatment is carried out. The chlorodyne is also of great use for treating the diarrhoea and dysentery of children, but for adults the addition of tinct. opii ℥j. to C. chlorodyne ℥ij. is beneficial, and in this case the digitalis may be omitted.

THE PHARMACY AND POISON LAWS OF THE UNITED KINGDOM, THEIR HISTORY AND INTERPRETATION.

WITH A BRIEF ACCOUNT OF THE PHARMACY AND POISON LAWS IN FORCE IN AUSTRALASIA, CANADA, AND CAPE COLONY. LONDON: OFFICE OF "THE CHEMIST AND DRUGGIST," PRICE 2s. 6d. POST FREE 2s. 9d.

THE following review of this recently published work has appeared in the *British Medical Journal*:—

Unfortunately the practice of pharmacy in this country is so much more largely a mere matter of ordinary trade than it is in continental countries that, with the exception of a comparatively small number of those engaged in the business, there is a marked deficiency of that professional spirit which characterises the more scientific pharmacists of Germany and France. Since the foundation of the Pharmaceutical Society and the recognition, by legislative enactment, of the principle that the practice of pharmacy demands scientific and technical qualifications of a high order there has probably been some improvement; but it is by no means sufficiently general. The great majority of chemists and druggists, though possessing a legal qualification, are essentially traders only, and though they have the advantage of an Act of Parliament which offers them the possibility of securing a distinct monopoly in the exercise of their calling, there has been far too little effort on their part to turn its provisions to practical account, either in their own interest or for the benefit of the public. In making these observations we are guided by a knowledge of the state of things which has prevailed in regard to the sale of poisons, and to which we have recently directed attention. The neglect of the Pharmacy Act in this respect has long constituted a ground for urgent remonstrance from the medical profession and from coroners, who have the serious consequences of that neglect brought under their notice. It is a reproach to the chemists and druggists of this country that such neglect has been allowed to continue, and that they have not long since united in an effort to put an end to it.

The treatise on Pharmacy and Poison Laws that has been published by the proprietors of THE CHEMIST AND DRUGGIST gives a most interesting summary of the history of pharmaceutical legislation and of the cases in which questions relating to the Pharmacy Acts have been brought before the courts. It sufficiently demonstrates that ample means exist for the more efficient and satisfactory regulation of the trade in poisons. In fact, perusal of the Act of 1868 and of the decisions which have been given in various cases of prosecution for its infringement leads to the conclusion that chemists and druggists enjoy protection in the exercise of their business to a far greater degree than medical men. The Act not only prohibits any but registered persons from keeping open shop and carrying on business as a chemist and druggist, or making use of that designation; but it absolutely forbids the retail sale or dispensing of a large number of articles, commonly used in medicine, by any person who is not authorised under the Act. The consequence of these prohibitions is that practically the business of compounding medicines and dispensing physicians' prescriptions cannot be lawfully exercised by any other persons. The power of enforcing the provisions of the Act in these respects is vested in the Pharmaceutical Society, which may be regarded as representing for that purpose the whole body of chemists and druggists. The exercise of that power serves, therefore, not only as the fulfilment of a public duty, but also to protect the privileges of duly qualified persons. In such cases as have come before the courts respect has been shown for the statutory privileges of qualified persons, and even in the litigation relating to the application of the law to limited liability companies, the necessity of qualification in the persons selling poisons was fully upheld by the House of Lords. And yet it is the fact, as stated at page 83 of the work now under review, that the explicit judicial dicta on this point "have been but little regarded by chemists generally"! For many years no action was taken in the sense suggested by those dicta, and it was not until the point was pressed upon the Pharmaceutical Society by Mr. Braxton Hicks that a prosecution was instituted for the sale of poison by an unregistered assistant. That prosecution gave rise to a considerable outcry on the part of chemists and druggists, and even the decision upholding the

necessity of qualification was at first received with dissatisfaction, and the whole matter was once more allowed to sleep until the recent vigorous action of the Chairman of the Parliamentary Bills Committee of the British Medical Association stirred the Pharmaceutical Society to something more nearly approaching a sturdy fulfilment of its public duty.

A similar inconsistency has characterised the action of chemists and druggists in regard to branch shops and the sale of poisons in the form of proprietary medicines. The general disregard of the law in both respects has long been notorious, and while it has contributed largely to render the Pharmacy Act ineffective for its intended object, it has deprived chemists and druggists of that protection, in the exercise of their business, which they might justly have claimed. Under these circumstances the complaints made by chemists and druggists of the competition of limited liability companies cannot be deserving of much consideration. If a limited company can carry on the business of a chemist and druggist it must be with the agency of a qualified person, and by that condition the public object of the Act is secured as amply as if he were the proprietor of the business. It is for qualified chemists and druggists to see that this condition is fulfilled, and it must be remembered that whatever may be their opinion of the value of proprietary qualification, it is of little account in the public interest when its duties are delegated to unqualified assistants.

The very excellent summary of this subject of pharmaceutical legislation now published will, it is to be hoped, direct attention to the need for better observance of existing enactments. It should stimulate those most directly concerned in promoting the interests, as well as the usefulness, of the important calling of pharmacy, to greater activity in the defence of their recognised position.

The book has evidently been written with great care. It is a simple narrative of facts, without expressions of opinion or any attempt to advocate particular views, and it is on that account the more valuable. Generally speaking, the statements in the book may be accepted as correct, and only in one place have we met with a remark to which exception can be taken. In reference to the application of the Act to patent and proprietary medicines, at page 93 there is this passage: "It was always certain that all medicines, patent or not, if they come within the description of poisons, are subject to the requirements of the 17th section of the Act—that is, as to labelling." If that certainty has always been perceived, the very general failure to observe the requirements of the Act, which has occasioned such strong remonstrance on the part of the Parliamentary Bills Committee, would furnish ground for a serious charge against the sellers of such articles.

However, we think that few can read this book carefully without being convinced that whether, in regard to pharmacy and the sale of poison, further legislation be requisite or not, the beneficial capabilities of the Pharmacy Act, 1868, are still very far from having been exhausted. Whether it be on the part of the Pharmaceutical Society, as the representative of chemists and druggists, or, failing that, by some other agency, that the latent powers of the Act are to be developed and made effective we will not now attempt to predict, but we are convinced that, in one way or other, action in that sense cannot long be delayed.

The following reviews have also appeared:—

Is it the recent case concerning patent-medicines and the application of the statutory restrictions to such of them as contain poisons, or is it the hideous history of Dr. Neill Cream that has led to the publication of a book upon the "Pharmacy and Poison Laws of the United Kingdom"? There is almost always a proximate occasion for the appearance of such semi-legal handbooks; but in any case the present one will be of value to a great many besides the apothecaries. The book is issued from the office of THE CHEMIST AND DRUGGIST, and is designed partly for the use of candidates applying to become licentiates of the Pharmaceutical Societies of Great Britain and Ireland. We are glad to hear that these young gentlemen have to be examined in the laws relating to the sale of poisons. The existing law is not perfect; but the ignorance or neglect of it is the root of much evil. We gather from one of the later chapters in the book that the Pharmaceutical Society is taking active and persevering steps to amend the law, although the history of the various Bills which have been before Parliament continuously from 1880 to the present time adds a new chapter to the record of the modern impotence of anything but Ministerial proposals.

We are glad to see, also, that the policy of the pharmacy law has been extending by degrees to the British colonies, the latest addition being a Pharmacy Act passed by the Cape Colony Legislature in 1891. It is one of the odd results of the lack of unity in the government of the Empire that the application of any special law of this kind to our very various possessions becomes a matter of pure chance. The series of cases decided upon the various statutes, of which this handbook contains a very fair report, is chiefly valuable to the general public as illustrating the difficulty and insufficiency of the present law. It was presumably intended to make it difficult for people to commit suicide or murder; but if the intending criminal is educated and ingenious, there is no real difficulty. Perhaps now that the matter has been brought into prominence by the Lambeth murders some of the more obvious amendments may become law at last.—*Daily Chronicle*.

This work, prepared more especially for the use of candidates for the pharmacy licentiate, is of peculiar interest to all engaged in the dispensing of medicines or the sale of poisons, while it has also a wider and more general interest as dealing with matters which affect the whole community. Great care has evidently been taken to ensure accuracy in the whole work, and the information contained in it has been brought up to the most recent date.—*North British Daily Mail*.

The historical value of the work is very great, and the publishers are to be congratulated on the excellent style in which the various decisions, &c., are presented. The smaller details of pharmacy in its legal aspect are not overlooked, the pronunciation of the word "pharmaceutical," for instance, coming in for a share of notice. The correct pronunciation was decided, it appears, by Lord Campbell during the progress of a trial, the learned judge pronouncing the "c" soft. This is contrary to the rules of Greek pronunciation, but the objection was overruled on account of the fact that the word is now recognised as an English word, and so subject to English rules.—*Pharmaceutical Record* (New York).

This neat little volume of some 200 pages is not merely a collection of the pharmacy and poison laws in force at present in the United Kingdom and its colonies, but it presents in narrative form the complete history of the development of these laws together with their interpretation in the courts. In this manner this compilation will naturally prove of considerable value to all persons affected by those laws, while also being of interest to all Americans who may be obliged to make a study of pharmacy legislation in general.—*Western Druggist* (Chicago).

Business Changes.

MR. F. S. SWINTON has purchased the business of Mr. E. S. Carruthers, 16 Irlam Road, Bootle.

THE offices of the Liquor Carnis Company (Limited) have been removed from 50 to 55 Holborn Viaduct.

MR. JOHN GUY, chemist, Chester, has resigned the office of sub-postmaster at Boughton, Chester, after holding it for twenty-four years.

MESSRS. TRIBE & LAMB, chemists and druggists, of 211 High Street, Chatham, are extending their business into (general supply stores).

MR. J. PEACE JONES, who opened the Builth Pharmacy in April last, is removing to more commodious premises at 2 Glan Irvon Terrace, High Street, Builth.

MR. GEORGE HARVEST, a son of the senior member of W. & D. Harvest, spice merchants, will be admitted into the partnership at the beginning of 1893; it is not intended to alter the title of the firm.

MR. J. KNIGHT, chemist and postmaster at Fenton, Staffordshire, has now fitted up new premises for the post-office next door to the pharmacy, which will henceforth be carried on quite separately.

MR. D. W. GREENHOUGH, of 5 Rood Lane, E.C., has taken into partnership his son, Mr. Geo. D. Greenhough, who has assisted him in his business for eight years. The style of the firm has been changed to D. W. Greenhough & Son.

MR. GEORGE SPEECHLY, pharmaceutical chemist, Bishop Stortford, has retired from the active management of his business, which he has transferred to Mr. Sydney Thomas Milbank, the firm taking the title "Speechly & Milbank."

MR. WOODMAN, of Odiham, Hants, has completely remodelled his pharmacy. This is a very old-established concern, dating back into the eighteenth century; modern requirements, however, have compelled Mr. Woodman to more than double his space. The work was executed by Messrs. S. Maw, Son & Thompson.

MR. W. A. BOWDITCH, chemical-broker, has retired from business in favour of his sons, William and Stanley Bowditch, who have taken an active part with him for several years. All outstanding accounts up to December 31 will be settled by him at 43 Mincing Lane, where the business will be carried on under the style of W. & S. Bowditch.

SPRATT'S PATENT (LIMITED) have rearranged their travellers' districts. Mr. Lethbridge relinquishes Birmingham and district and South Wales, and is succeeded in Birmingham district by Mr. Trevanthen, and in South Wales by Mr. Willis, the latter gentleman also taking North Wales and the West of England below Exeter. Mr. Goss acts as depôt-manager at Bristol, and works a portion of the West of England.

MESSRS. HILDESHEIMER & FAULKNER, of 41 Jewin Street, 4 New Zealand Avenue, and 13 Barbican, art publishers, have dissolved partnership. Mr. Albert Hildesheimer will continue to carry on a similar business at 4 New Zealand Avenue, and Mr. Charles William Faulkner will conduct such a business at 41 Jewin Street. Mr. A. E. Ayres has been appointed by the late partners to receive and pay all accounts for the late firm, and his office will be at 13 Barbican.

MARRIAGES.

[Notices of Marriages and Deaths are inserted free if sent with proper authentication.]

FLETCHER—POTTS.—On January 3, 1893, at the parish church, Ilkeston, by the Rev. E. M. Evans, vicar, Mr. William George Fletcher, son of Mr. William Fletcher, chemist and druggist, Ilkeston, to Sarah Jane, daughter of Mr. Charles Potts, chemist and druggist, of Ilkeston.

HITCHINS—PERCY.—On December 29, at St. Cyprian's Church, Durban, South Africa, by the Rev. Johnstone, R. Lewis Hitchins, solicitor (of the firm of Livingston and Hitchins), eldest son of Captain John Hitchins, Penlee, Natal, to Mabel Rich, second daughter of T. B. Percy, chemist, of Plymouth and Truro.

DEATHS.

BOWMAN.—On Tuesday afternoon, December 27, Mr. William Bowman, chemist, 65 Park Lane (late of 100 Duke Street), was inspecting the new overhead railway, when his foot slipped. He fell, and in doing so struck his head against the ironwork, sustaining injuries from which he died the same day.

BURCHELL.—On November 13, Mr. R. H. Burchell, chemist and druggist, Kettering. Aged 32.

CORKE.—The death of Mrs. Corke, wife of Mr. E. Corke, chemist, of Ticehurst, from pneumonia, is announced.

CUTHBERTSON.—On December 29, at 125 Union Street, Stonehouse, Plymouth, Thomas Fox Cuthbertson, chemist, late of Lostwithiel, aged 53.

GETHING.—On December 15, Mr. W. B. Gething, pharmaceutical chemist, Brixton. Aged 54.

HODGSON.—On December 28, 1892, at his residence, The Old Hall, Thurmaston, Mr. Jonathan Hodgson, formerly a chemist and druggist in Leicester. Aged 85. Mr. Hodgson's business was situated at the corner of Gallowtree Gate and Halford Street, in Leicester, but when that property was taken by the Town Council some years since, for the purpose of widening the latter thoroughfare, Mr. Hodgson retired. At one time he was himself a member of the Leicester Town Council.

MARTIN.—On December 18, Mr. W. G. Martin, chemist and druggist, Poplar, E. Aged 57.

RHODES.—On December 11, Mr. William H. Rhodes, chemist and druggist, Leeds. Aged 81.

ROSS.—On December 27, Georgina, daughter of the late George Philp, Kirkcaldy, wife of W. R. Ross, chemist, Hawick.

SHIPMAN.—On December 14, Mr. J. J. Shipman, chemist and druggist, Bournemouth. Aged 64.

WILLS OF DECEASED CHEMISTS.

The will, (dated August 25, 1892) of Mr. William Robert Barker, late of 143 New Bond Street, and 50 Brook Street, Grosvenor Square, chemist, who died on October 19, has just been proved by John Andrews, Edward Warwick Williams, William Henry Gallier, and Alfred Barker, the nephew, the executors, the value of the personal estate amounting to upwards of 49,000*l*. The testator bequeaths 500*l*. to the London Orphan Asylum, Watford; 250*l*. to the Pharmaceutical Society Benevolent Fund; 100*l*. to the Cheltenham Hospital; 50*l*. to Miss Wemyss's Home, Painswick, Gloucestershire; 7,000*l*., upon trust, to pay an annuity of 100*l*. to his sister-in-law, Mrs. Harriet Badham, and subject thereto for his niece, Edith Barker Badham; 5,000*l*., upon trust, for each of his nieces, Winifred Hamer Badham and Martha Jenner; 4,000*l*., upon trust, for his niece, Amelia Mercy Henry; and liberal legacies to other of his relatives, friends, executors, employes of his firm, and servants. As to the residue of his real and personal estate, he leaves three-sixths to his said niece, Edith Barker Badham, and one-sixth each to his said nieces, Winifred Hamer Badham and Martha Jenner, and to his nephew Alfred Barker. — *Illustrated London News*.

The will, dated May 10, 1890, of the late Mr. J. W. Wain, of Ripley, Derbyshire, chemist and ironmonger, who died on January 5, 1892, was proved in London on June 1 by Margaret Wain, the widow and sole executrix, to whom the testator devises and bequeaths the whole of his estate, real and personal. The gross personalty amounted to 2,148*l*. 3*s*., and the net to 875*l*. 11*s*. 2*d*.

The will of the late Mr. D. C. Evans, chemist, of Maidstone, who died on March 12, 1892, has been proved at the Principal Probate Registry by Mrs. Evans, the widow, and Mr. W. H. Darley, the executors. The gross value of the personal estate amounted to 800*l*. 1*s*. 7*d*., and the net to 366*l*. 18*s*. 8*d*.

The will of the late Mr. Richard Preston, pharmaceutical chemist, of 100 Fulham Road, who died on April 15, 1892, has been proved at the Principal Probate Registry by Mrs. Preston, the widow and executrix of the deceased. The gross value of the personal estate amounted to 1,076*l*., and the net to 995*l*. 16*s*. 11*d*.

The will of the late Mr. William Smith, retired chemist, of Abingdon, who died on December 4, 1891, has been proved at Oxford Probate Registry by Mr. W. F. Smith, the son and sole executor. The gross value of the personalty amounted to 8,948*l*. 14*s*. 10*d*., and the net to 8,717*l*. 3*s*. The testator leaves 500*l*. each to his grandson, George Maule, and granddaughter, Annie Smith, and 5*l*. each to his nephews and nieces. The residue of his property he leaves to his son.

The will and codicil of the late Mr. Robert Lyon, who died on May 20, 1892, at Great Yarmouth, have been proved at Norwich Probate Registry by the acting executors, Messrs. A. W. H. Frost and G. S. Furlong. The personalty was under 300*l*., and there were no leaseholds. The testator leaves his furniture and household effects to his widow, with a legacy of 100*l*. He directs that his freeholds shall be sold, and the proceeds, with his personal property, invested for the benefit of his widow, subject to a small annuity to a brother. Upon his widow's death the property is to be divided between the testator's niece, Mrs. Salter (with remainder to her children), and various other parties.

The will of the late Mr. R. R. Juler, formerly a chemist, of Woolwich, but late a dentist, who died on February 18, 1892, has been proved at the Principal Probate Registry by Mrs. Juler, the widow and sole executrix. The gross personalty was 317*l*. 4*s*.; the net *nil*.

The will of the late Mr. Edward Wilson, of Wolstanton, chemist and druggist, who died on January 15, 1892, has been proved at Lichfield by Messrs. J. P. Street and R. Timmis, and Mrs. Wilson the widow. The gross personalty amounted to 4,463*l*. 6*s*. 2*d*., and the net to 4,147*l*. 2*s*. 1*d*. The testator bequeaths to his wife his plate, linen, furni-

ture, and household effects, and appoints her guardian of his son. He directs his business to be sold, and the proceeds, together with the whole of his estate, subject to the payment of a 20*l*. annuity to a sister, to be held in trust for the use of his wife for life, with remainder to his son.

The will of the late Mr. Henry Durden, chemist and druggist, of Dorchester, who died on January 25, 1892, has been proved at Blandford Probate Registry by Mrs. Durden, the widow and sole executrix. The personal estate was sworn under 3,000*l*. The testator leaves all his property, real and personal, to his widow absolutely.

Letters of administration of the personal estate of the late Mr. G. S. Booth, chemist and druggist, of Heckmondwike, Yorkshire, who died on February 23, 1892, intestate, have been granted to Mr. John Booth, chemist and druggist, of Heckmondwike, the deceased's father and next-of-kin. The gross personalty amounted to 157*l*. 10*s*.

The will of the late Mr. W. E. Skirrow, retired chemist and druggist, who died at Bingley, Yorkshire, on December 6, 1891, has been proved at Wakefield Probate Registry by the executors, Messrs. William Skirrow (the son) and Sydney Warrington. The gross personalty amounted to 9,059*l*. 4*s*., and the net to 9,018*l*. 11*s*. 6*d*. The testator leaves his property between his daughter Annie and his aforesaid son, especially bequeathing to the latter his shares in the Bradford Bank, his shop and dwelling-house and adjacent premises, together with the furniture and household effects.

The will of the late Mr. Felix Stevens, chemist, of Judd Street, London, who died on January 27, 1892, has been proved at the Principal Probate Registry by Mr. F. F. C. Stevens, the son and sole executor. The gross value of the personal estate amounted to 804*l*. 6*s*. 5*d*., and the net to 315*l*. 10*s*. 11*d*.

The will of the late Mr. William Farnworth, dated July 16, 1891, of Blackburn, who died on March 31, 1892, has been proved at the Lancaster Probate Registry by Mr. Walter Farnworth, the son and acting executor. Subject to a legacy of 100*l* to his friend Mr. W. Moulden, and an annuity of 40*l*. to his sister Mrs. Livesey, the testator bequeaths and devises the whole of his estate, real and personal, to his widow.

Letters of administration of the personal estate of the late Mr. Robert Hughes, of Llangefni, county Anglesea, chemist, who died on May 7, 1892, intestate, have been granted at Bangor Probate Registry to the deceased's son, Mr. R. H. Hughes, bank-manager, Cowbridge. The gross value of the personalty amounted to 86*l*.

The will of the late Mr. Francis Swift, pharmaceutical chemist, of Chatsworth Road, Clapton Park, who died on May 19, 1892, has been proved at the Principal Probate Registry by the executors, Mr. C. L. Spencer and Miss M. E. Swift, the deceased's daughter. The gross personal estate amounted to 642*l*. 5*s*. 8*d*., and the net to 492*l*. 9*s*. 10*d*.

Letters of administration of the personal estate of the late Mr. William Carr, of Leicester, pharmaceutical chemist, who died on May 1, 1892, intestate, have been granted to Mr. Edwin Carr, drug-store keeper, of Leicester, the deceased's son and one of the next-of-kin. The gross value of the personalty amounted to 2,769*l*. 6*s*. 10*d*., and the net to 2,654*l*. 17*s*. 4*d*.

POST-CARD COMPETITION.

WE invite anecdotes in connection with pharmaceutical life, to be told on post-cards, and we offer

ONE GUINEA FOR THE BEST.

The anecdote may be anything which has occurred in connection with the business or trade; it must be original, and must be told crisply, and it must be sent to us not later than Monday, January 23, so as to be in time for our Winter Issue. Contributors who do not wish their names to appear unless they take the prize should add a *nom de plume*, which will be used.

THE RUSSIAN PLATINUM DEPOSITS.

THE most distinctive feature of the platinum-beds in the Ural Mountains is that in them the metal occurs in grains, embedded in a layer of friable, easily washable sand, whereas in Brazil and the American Andes the platinum occurs in hard serpentine rocks as an ore, and is never found in grain form. The principal districts in the Urals in which platinum is found are at Bisserski, in the Government of Perm, in the district of Khotourski, and in the State properties of Goroblagodatski, where sixty-six mining concessions have already been granted. On the western declivity of the Ural Mountains there is another platinum-bed, near the river Outka. The proportion of platinum grains is from 17 to 21 grammes to every 1,640 kilos. of sand. In some of the beds the thickness of the turf covering the sand does not exceed from 2.16 metres to 2.88 metres, while in others it varies from 10.80 metres to 14 metres, so that it becomes necessary to work underground. The thickness of the platinum sands does not vary much. The platinum found in the northern district contains a considerable proportion of gold, whereas that found in the Taghil district contains hardly any. They are also very different in appearance. The former appears clear and very brilliant, while the latter is of a dull colour, and is frequently found mixed with rare metals, such as iridium and osmium. The demand for platinum for industrial purposes only dates from the last twelve or fifteen years. It is now largely used for electric-lighting and dynamo conductors, and considerable quantities of platinum are also employed in chemical and other factories. During the last twelve years the annual production of platinum has averaged about 3,194 kilos., of which half has been derived from the beds in the north of the Ural Mountains, belonging either to the State or to private persons. Throughout the whole world only about 3,270 kilos. of platinum are annually used; but it is anticipated that this amount will soon be considerably increased, and it is stated that the platinum-beds of Bisserski can alone supply the total quantity required for the consumption of the world. When the demand for platinum was insignificant, and the price very low, the gold-miners who found platinum while seeking gold frequently, it is stated, used the former instead of lead as shot for firing at wild birds. All the platinum extracted from the Ural Mountains, after having paid a tax of 3 per cent. in kind, is sent as raw ore to St. Petersburg for treatment and shipment to foreign markets.

TO PIERCE CORK.

A HANDY substitute for the pierced indiarubber corks of the laboratory may be manufactured by the following

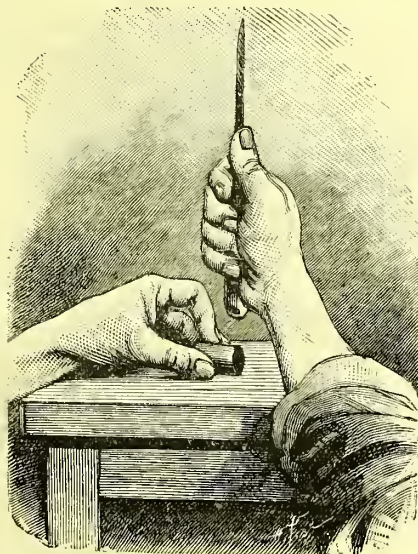


FIG. 1.

process:—Take an ordinary cork, beat it well with the

handle of a screwdriver or other tool until it has become soft to the touch (fig. 1). Then scrape or file away gradually from the outside until the cork is sufficiently reduced to

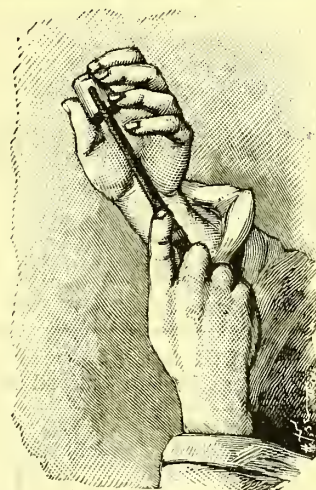


FIG. 2.

fit into the receptacle for which it is destined (fig. 2). Remember that it should fit as tightly as possible. Now



FIG. 3.

take a gimlet, heat it to redness, and pierce the cork with it in the manner indicated in fig. 3. The hole which has been

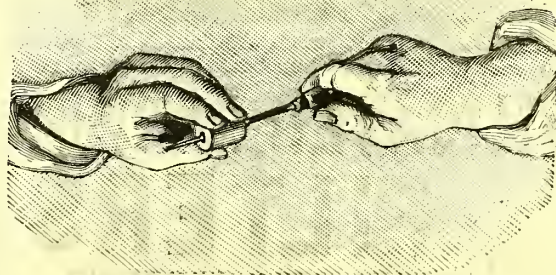
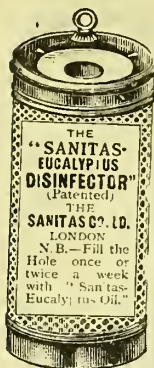


FIG. 4.

burnt into the cork may be widened by means of any handy tool (fig. 4).



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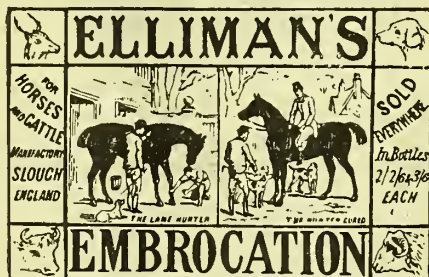
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See also page 32 (bottom folio), of THE CHEMIST AND DRUGGIST, December 31, 1892.

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Editorial Comments.

THE NEGLECT OF THE PHARMACY ACT.

In a lengthy review of the treatise recently published at this office on "The Pharmacy and Poison Laws of the United Kingdom" the *British Medical Journal* makes some important comments, expressing, we presume, the views of at least a considerable section of the medical profession of this country in regard to the administration of the Pharmacy Act.

The text of the comments is "the recognition, by legislative enactment, of the principle that the practice of pharmacy demands scientific and technical qualifications of a high order." But the recognition of this principle, or the existence of the qualifications (we are not quite sure which is meant), is not, according to our contemporary, sufficiently general "The great majority of chemists," says the *British Medical Journal*, "though possessing a legal qualification, are essentially traders only, and though they have the advantage of an Act of Parliament which offers them the possibility of securing a distinct monopoly in the exercise of their calling, there has been far too little effort on their part to turn its provisions to practical account, either in their own interest

or for the benefit of the public." There can be no doubt of the truth of the charge that chemists have never sought—at all events, till lately—to make the Pharmacy Act really operative. Their neglect in this respect, declares our critic, has long constituted a ground for urgent remonstrance from the medical profession and from coroners, who have the serious consequences of that neglect brought under their notice. This also is true. Scarcely a week passes in which we do not have to record some expression of opinion from coroners and juries intimating that the trade in poisons appears even yet too free. There has scarcely ever been any judicial or magisterial remonstrance with the Pharmaceutical Society for too urgently pressing the provisions of the Act. It is quite certain that the statute is one which the public wishes to have enforced strictly, and which may be enforced strictly to the public benefit.

Few will deny that the stringent limitation of the sale of poisons to chemists and druggists must work to the ultimate benefit of those who are qualified to practise as such. Why, then, seeing that the Legislature has enacted these provisions, that the influential part of the public desires to have them enforced, and that it is to the commercial benefit of chemists and druggists that they should be enforced, has the Act been so seriously neglected? Mainly, we think, because the potentiality of the Act has never been seriously realised. True, it involves some inconvenience and some expense. There are not enough qualified chemists and druggists available to meet the demand if the poisons regulations are to be obeyed to the letter. These are considerations which should be borne in mind by those in whom a discretionary power is vested, but they certainly should not loom so largely as to eclipse altogether the view of the duty which the Pharmacy Act imposes.

The *British Medical Journal* is partially correct in the assertion that "chemists and druggists enjoy protection in the exercise of their business to a far greater degree than medical men. The Act not only prohibits any but registered persons from keeping open shop and carrying on business as a chemist and druggist, or making use of that designation; but it absolutely forbids the retail sale or dispensing of a large number of articles, commonly used in medicine, by any person who is not authorised under the Act. The consequence of these prohibitions is that, practically, the business of compounding medicines and dispensing physicians' prescriptions, cannot be lawfully exercised by any other persons." Except for the semi-obsolete Apothecaries Act, the law provides no restrictions on the practice of medicine or surgery. The very great difficulty of carrying on a surreptitious drug-business without infringing the Act in relation to the sale of poisons is evident enough to those who have tried it. The grocers appreciate how their trade in medicines will be hampered if the case now pending should go against them. If chemists would recognise this more distinctly, and resolve as a body to fulfil in spirit and in letter the obligations placed upon them, they would accomplish more than they imagine. We hope with our medical contemporary that the publication of our Manual of the Pharmacy and Poison Laws will indeed "stimulate those most directly concerned in promoting the interests, as well as the usefulness, of the important calling of pharmacy, to greater activity in the defence of their recognised position."

THE EUCALYPTUS-OIL INDUSTRY.

OF all the minor benefits to the community that came in the trail of last year's visitations of influenza and cholera, the magnificent business opportunities which these epidemics afforded to the originators of sundry new remedies were,

perhaps, the most clearly definable. Scores of enterprising manufacturers knew how to take occasion by the hand, and have waxed fat accordingly. Among these the eucalyptus-oil distillers and their agents occupy a distinguished position; but while these gentlemen have reason to feel some measure of gratitude for the epidemics, they have probably long ago come to the conclusion that it was, for them, an ill-starred speculation that caused the price of eucalyptus oil to advance for a few brief spring weeks in 1892 from 3s. to 12s. per lb. What most people foresaw has come to pass. The production of the drug has out-distanced the demand at an enormous pace, and to-day the commercial outlook for the oil, from the producers' point of view, is as bad as it has ever been. There are a few brands of proved excellence, the proprietors of which, aided by clever and free-handed advertising, have obtained a hold on the market so firm that it will carry them through the period of over-production upon which we have entered; but the mass of smaller or less enterprising producers who have shot up like weeds in all quarters of the world will assuredly have to face extinction after an ineffectual struggle to make their industry pay. Only a few weeks ago we announced the inauguration of several new distilleries in Tasmania, but in the neighbouring colony of Victoria the eucalyptus mania is developing still more alarming symptoms. All the Australian colonies are passing through a cycle of commercial depression almost unexampled even in new countries; and it is therefore but natural that industries which in better times attracted comparatively little attention should now be resorted to with something like the energy of despair. Still, the news that within the last few months from thirty to forty new eucalyptus distilleries have been started in the Victorian districts of Bendigo and Gippsland, denotes a recklessness on the part of the persons concerned which is only ascribable to their absolute ignorance of the extent of the field of consumption of the oil. It is, therefore, in the interests of the misguided over-crowders, quite as much as of the established traders in the drug, that the new-comers should be warned not to cherish any hope whatever of making a living by their venture. There is much more eucalyptus oil produced now than there is an outlet for at present. We quite recognise that the Australian distiller, commanding plenty of practically gratuitous material on the Crown lands of his colony, which it only requires a still of some sort to convert into what we will by courtesy call eucalyptus oil, can produce cheaply; but that is not all that is required. Most of the new distillers, if we are rightly informed, have little or no knowledge of the variety or quality of oil they produce; and, unlike the well-organised Australian and Californian companies, they cannot ship direct to London. They are dependent upon some trader in Melbourne or elsewhere who can only afford to pay them a starvation price, and who, in his innocence, mixes together all that he buys from his various clients and consigns the whole to Europe to be sold as well as may be. There are lots of such consignments in the market here now; they come in tins, in cases, and in kegs, they obtrude themselves to weariness at the public sales, and if sometimes they are ostentatiously "knocked down" at one auction, it is only to bob up serenely again on a subsequent occasion. There is more than one holder who would take 2s. per lb. gladly for his stuff if he could but get an offer. But he cannot. Wholesale and retail dealers almost without exception have stocked themselves full in anticipation of fresh epidemics this spring, and it would take an influenza on the scale of one of the plagues of Egypt to create a fresh scarcity of eucalyptus oil.

Much attention has lately been paid to the chemistry of this oil, and careful investigations, if perhaps not carried out

altogether in the spirit of the philosopher to whom science is its own reward, have elucidated many points of considerable commercial value to those handling the article. The researches of Helbing and Passmore, for instance, to go no further, have established that an oil of eucalyptus to be medicinally trustworthy should yield "about 40 per cent. of eucalyptol by crystallisation from the fractions obtained above 172° C.; and it is generally believed that the oils of higher density should yield less than 5 per cent. of distillate below 170° C., with only traces of aldehydic bodies"—a condition which necessitates careful redistillation. According to the same investigators, the manifestation of an irritating action on the mucous membrane when inhaling the odour of a sample, showing itself in a tendency to produce coughing, indicates the presence of a volatile aldehydic compound which constitutes an impurity. Whether this opinion is correct or not is another matter, but it at least deserves consideration.

FORTY-TWO.

THIS number of THE CHEMIST AND DRUGGIST is one to remember. It begins the forty-second volume issued from 42 Cannon Street. Some of our first subscribers (and we are glad to know that not a few of these are still faithful supporters) remind us now and then of the days when we were in Bow Lane, or at 44A Cannon Street; but those who know Cannon Street are aware that the same roof still shelters us, though house and street improvements have shifted the number. In location only has THE CHEMIST AND DRUGGIST been stationary; in all other respects we have followed the policeman's injunction. "Si monumentum requiris circumspecte," were the prophetic words of our editor of 1859, and in this year of grace 1893 we may, with profit, regard his prophetic words literally.

Chemists so well know what white demy costs them that they may be interested to learn that for each set of a year's numbers of this journal we now use 28 lbs. of paper; better in quality, by the way, than demy. Add to that the weight of the DIARY, and the bulk of the ten-shilling subscription is swallowed up in paper. Volume i. of THE CHEMIST AND DRUGGIST was a trifle larger than the DIARY for the present year: it comprised 296 octavo pages of literary matter. The octavo form was retained until 1864, when it was changed to the present size. The whole volume for 1864 (advertisements and literary matter) was just a match for our Summer Issue of 1892. Last year the literary matter alone amounted to 1,884 pages, volume xli. exceeding all that preceded it.

There is one feature about the volumes of 1892 which strikes us as being particularly prominent—namely, the large proportion of space occupied by correspondence. This amounted in the first half of the year to 101 pages, and in the latter half to 103, or more than a tithe of the whole. As chemists and druggists and the successors of those who made THE CHEMIST AND DRUGGIST at the outset "a trade journal," we cannot but regard it as of the highest interest to the trade that there should be provision for the publication of trade views upon topics appertaining to it, and it has always been our policy to allow free expression of opinion, short of libel and vituperation, whether we agreed with it or not. Probably we may often, in consequence, have been saddled with opinions which were not ours, and have suffered accordingly. That, however, is past and done with, but we may at this the opening of a new volume and a new year call attention to some points of our correspondence, observance of which on the part of subscribers would greatly assist us in dealing with the large amount of correspondence sent

to us for publication. In the first place we may take subscribers into our confidence by telling them that our office is conducted on a departmental system, the several departments being classed under two principal groups—editorial and publishing. The publisher has his general advertising department, one for Supplement or small advertisements, others for subscriptions, for correspondence as to delivery of copies, and so on. A single communication bearing upon two or more of these departments must pass from one to the other until the whole of it has been disposed of. Hence for prompt attention we always advise a separate piece of paper to be used for each subject-matter, and the same applies to the editorial departments, especially correspondence. Each subject goes to the right spot at once. A letter for publication should always be a distinct communication; nothing else should be mixed up with it. Each query—no matter whether legal, dispensing, or general—should stand by itself, and the paper upon which it is written should always be backed with the shop-stamp.

This week we print freshly-worded rules at the heads of our correspondence sections. The one in regard to conciseness should be noted. We very much prefer correspondents to remove padding and trimming from their letters rather than leave it to us to do. We have no great liking for bareness in diction, but flowery language means so many tons more of paper per annum, and with half a sovereign as a fixed quantity on the subscribers' side, the jaws of the paper-eating machines have a certain terror for us. We dispose of some thousands of queries every year, dealing with all that concerns the druggists' business—in legal circles, we understand, we have quite a bad reputation for spoiling fees. These queries are often embarrassing. The querists are so anxious to have replies "this week," or "by return of post," sometimes even "by telegram," all of which is trying when the requests of the ninety-and-nine lie before us. Probably, if we were to say now that we have rules and must stick to them, some brilliant exception will meet us to-morrow morning; so we shall only say that we do our best in replying to please all reasonable people. They must not ask us to repeat this formula or that, or give us problems which it would be necessary to pass over to the Lord Chief Justice or the Pharmaceutical Research Laboratory. Above all, they must remember that correspondence comes at the end of the journal, and is, therefore, peculiarly liable to limitation.

THE JANUARY EXAMINATIONS.

Under the new system, the London Board of Examiners were able last Friday (December 30) to tell Major men who had entered for the January examination that they had passed. It is time this anomaly had ceased. The failures in the Minor examination have again been very heavy, the ignorance displayed in conducting pharmaceutical operations, such as the making of syrup of ferrous iodide, being marvellous. There is nothing but shop practice that will counteract this weakness, and employers will have to put up with something more than test-tube experimenting if the examination results are to be improved. Three or six months in a school of pharmacy will not do it.

THE LABELLING OF POISONOUS PATENT MEDICINES.

The *British Medical Journal*, in reviewing our "Pharmacy and Poison Laws," queries the passage on page 93, where it is stated that

It was always certain that all medicines, patent or not, if they come within the description of poisons, are subject to the requirements of the 17th section of the Act—that is, as to labelling.

That assertion is based on the words in the 16th section of the Pharmacy Act, which declares that "nothing *hereinbefore* contained shall affect," among other things, "the making and

dealing in patent medicines." It is true that the chlorodyne case at Bow Street raised the point that as the 2nd section of the Act created poisons, "patent-medicines" were not affected by that section, and therefore were not poisons in law, and need not be labelled as such. And Mr. Lushington dealt with the point by deciding that chlorodyne was not in the legal sense a patent medicine. But the exemption is not of patent medicines; it is of the "making and dealing in" those articles, and therefore it would seem that a preparation though actually patented may still be a poison in law, and if so, must be labelled as such.

THE GOVERNMENT AND PATENT MEDICINES.

The *Court Journal* must have exclusive sources of information. It announces, with that confidence which only definite knowledge or absolute ignorance can inspire, that "the Government have resolved to bring patent and proprietary medicines under their stringent supervision, to the extent that all such medicines shall be submitted to a body of Government analysts. If they find the medicine is to their taste it will be passed, sanctioned by authority as an article that may be sold." The Government have taken several largish contracts already, and they will certainly have to postpone this one, especially as there will in all likelihood be a split in the Cabinet when it becomes necessary to decide on the merits of Beecham's Pills or Mrs. Winslow's Syrup as a question of taste. The C. J. seems to have derived its inspiration from the London correspondent of some provincial papers, whose item was based on the dictum of a medical journal which had formulated its demand on the Government in the peremptory style which seems to pass for authoritative in those quarters.

VETERINARY CHEMIST.

We are informed that the Council of the Royal Veterinary College are again contemplating an attack on chemists who, not being on the Veterinary Register, describe themselves as veterinary chemists. Last year, it will be remembered, about 50% was promised towards a fund for having the point argued in the High Court. We shall be glad to hear again from any persons who may think the right worth contesting how much they will pay towards the costs of an appeal if one should be necessary. We will ourselves contribute 10%.

TOO ZEALOUS.

The title "divisional secretary" seems to be a happy-chosen one. It has a "brigadier-general" sort of sound. And the proud possessors of it naturally try to live up to it. These officers are supposed to act under orders direct from headquarters; but we hope it was on his own responsibility that the Divisional Secretary for the Borough of Wandsworth wrote to the *West London Reporter* asking any of the readers of that "widely-read paper" "who may have derived benefit from medicine or advice of chemists" to contribute to the Benevolent Fund of the Pharmaceutical Society. We do not think it at all desirable that such an appeal should be made to the public, but if there should be reasons for making one it ought certainly to be made by the official heads of the Society only.

TO DANCING CHEMISTS.

We are requested to remind the pharmaceutical *beau monde* that balls are being prepared for them at the Portman Rooms, Baker Street, London, on Wednesday, January 13, and at the Assembly Rooms, Edgbaston, Birmingham, on Thursday, January 19. The former event is the twenty-seventh "Chemists' Ball," and the honorary secretary is Mr. H. A. Thomas, of 17 Gracechurch Street, E.C. The latter is the twenty-second Midland Counties Chemists' Ball, of which Messrs. F. H. Alcock, of Temple Chambers, and Mr. T. W. Chapman, of 199 Bristol Street, are honorary secretaries. Brighton, too, offers an opportunity to pharmaceu-

tical dancers next week, and its Junior Association is getting ready for a ball in February.

A BETTER CARBOLIC ACID WANTED.

One of the principal papers printed by the medical journals last week is by Professor Charteris on the physiological action and therapeutic use of carbolic acid in typhoid fever (*B. M. J.* 1,424). Substantially the article is intended to show that the ordinary or B.P. acid melting at 33° C. is a dangerous medicine for internal use compared with the pure acid melting at 40° C. Thus, 8-grain doses of the latter administered hypodermically to a rabbit were found to be innocuous, but the same quantity of B.P. and synthetic acids caused death. The pure acid to which the professor refers was Robert Graesser's crystals, and it was administered to the fever patients in 2½-grain pills, keratin-coated. The clinical results were, on the whole, satisfactory, and none of the objectionable symptoms attributed to carbolic acid were observed. Professor Charteris concludes that this shows that these symptoms must be due to impurities, and he again urges that an acid melting at 40° C. should be recognised by the Pharmacopœia. His paper is the best argument in this direction which he has yet brought forward, but it may be noted that there is no difference in bactericidal power between the three acids mentioned, so that the less pure variety is still good for lotions.

EX LUCE LUCELLUM.

The ingenuity of our correspondents in finding defects in any and every scheme proposed to restore profits is a little discouraging. We last week directed attention to Mr. Clarke's well-thought-out arrangement, which offers to chemists a fair chance to make a decent little profit out of the night-light business. Promptly Gilgen intervenes with the observation that Mr. Clarke's plan is not good enough because it does not comprise any method of compelling the customer to bring back the coupons. Which is true; but surely when the manufacturer is willing to put himself to the trouble and expense of carrying out a scheme of this character, the retailer may be asked to co-operate to the extent of explaining the matter to his customers, and doing what he can to induce the return of the coupons.

MICROBES IN NATURAL MINERAL WATERS.

Our Paris correspondent sends a note this week regarding an investigation by Vichy chemists as to the existence of microbes in that water, which is strikingly corroborative of Dr. Biedler's observations referred to last week, except on the point that the latter says that the water in the natural state does contain microbes. This is a small matter, however, compared with the important fact that Vichy and some other natural waters as they reach the consumer do contain micro-organisms. It would be advantageous now to learn whether any pathogenic micro-organisms are included in the thousands which have been found. Some of the rich companies who place natural mineral-waters on the market should in their own interests have this investigated.

MONTAGU-CAPULET.

The announcement at the head of this little paragraph never got inserted in the Italian papers owing to the unfortunate circumstances recorded by the late Mr. W. Shakespeare. Our marriage-list this week, however, contains the notice of an event which may be regarded as a parallel to the Montagu-Capulet alliance if it had come off. In a fair-sized town in Derbyshire there are five or six chemists in business. By all the recognised laws of pharmacy these gentlemen should hate each other and do all they can to ruin each other; but it appears by our announcement that, instead of working that way, the son of one of these chemists has married the daughter of another, a proceeding which is at least unorthodox and a public

danger, inasmuch as it tends to crush out that healthy competition which, we are assured, is so serviceable to the public. We like innovations, however, and offer our salutations to the young heretics.

WILL COST MORE TO BE A VET.

The Royal College of Veterinary Surgeons have got a new charter. This is the third they have had. Their first, in 1844, gave them power to charge up to ten guineas for examination and admission. By the charter of 1883 they were authorised to raise their fees to thirteen guineas, and now they are entitled to scoop in twenty guineas. If workmen combine to keep their crafts select they will, likely enough, find themselves hauled up on a charge of conspiracy. Why don't they get a Royal Charter and so block competition in a professional manner?

AN AMERICAN IDEA.

We hold the *Apothecary* responsible for the statement that the Virginia Board of Pharmacy has adopted the plan of requiring candidates for registration to do the actual dispensing of prescriptions and other similar work. "We have already expressed approval of this plan," adds our contemporary, "and it is gratifying to see that it is spreading." Well, well—these American pharmacists beat creation. Whoever would have thought of testing a man's ability to make a pill by getting him to make it?

FAILURES IN 1892.

We have received the statistics of commercial failures in 1892, compiled by Mr. Richard Seyd, F.S.S. The total number of failures in the United Kingdom in 1892 was 9,609—viz., 5,280 bankruptcies and 3,831 deeds of arrangement. The total is a considerable increase on recent years. Since deeds of arrangement have been officially registered the total record stands thus:—1888, 9,217; 1889, 8,732; 1890, 7,876; 1891, 7,983; 1892, 9,609. Chemists and druggists do not seem to contribute their share towards the increase. The record (from Mr. Seyd's classification) stands as follows:—

1888	wholesale,	12	bankruptcies	3	deeds	} 71
	retail,	36	"	20	"	
1889	wholesale,	5	"	6	"	} 70
	retail,	36	"	23	"	
1890	wholesale,	3	"	3	"	} 43
	retail,	18	"	19	"	
1891	wholesale,	3	"	6	"	} 49
	retail,	25	"	15	"	
1892	wholesale,	9	"	10	"	} 60
	retail,	20	"	21	"	

GROCERS AND THE PROPRIETARY-MEDICINE TRADE.

"Have grocers a right to the patent-medicine trade?" asks "Fairplay" in the *Grocer*. They have, he thinks, inasmuch as it is they who have made the trade what it is. Chemists have been trying for twenty-five years to drive patent medicines out of existence by abuse and extortionate charges, now they turn round and want a monopoly of them! If they could get it they would, according to their own words, expressed in their own journals, charge full prices, and so ruin the trade. According to "Fairplay," chemists nowadays sell razors, knives, scissors, spectacles, soaps, combs, brushes, chamois leathers, tea, coffee, cocoa, wines, spirits, cigars and tobacco, ink, furniture-polish, and a host of other things. How this affects the legal right of grocers to sell poisons is not obvious. But the next point is serious. "Should they (the chemists), by a side-wind, gain the action now about to be settled, a company now in existence will undertake to supply every grocer in the United Kingdom with every article the chemist sells, and each article at a popular price. Then the war will really begin." But the grocers are not all as bloodthirsty as this good man "Chlorodyne" replies to his ravings the next week in a very sensible letter. He asks him why does he not abuse the law

for not allowing grocers to go out visiting and prescribing for the sick? He certainly does not defend the chemists for selling groceries, but he suggests that "Fairplay" might set his own house in order before attempting to put others right. He says grocers began the trespassing, and he is inclined to believe that chemists were the first dealers in tea, coffee, and cocoa. He asks whether "Fairplay's" terrible "company in existence" will not only supply the drugs but also teach vendors the difference between tartar and tartar-emetic.

HOSPITAL DISPENSERS AND CHRISTMAS.

A London wholesale drug-firm send us a copy of a letter received by them, as follows:—

December, 1892.

GENTLEMEN,—At this time of the year it is the custom of the wholesale houses with whom we have an account to remember in the usual way the Dispenser at the — Hospital. I hope that you will not depart from this custom, and, as the ordering of the drugs, &c., is wholly in my hands, I should see that the interests of your firm did not suffer. Wishing you the compliments of the season, and every possible success through the coming year,

I am, Gentlemen,

Very faithfully yours,

— Dispenser,

— Hospital.

We suppress all names at present, but as applications of this kind are particularly objectionable to firms who carry on an honourable business, we hope this paragraph will be understood as a preliminary to a more complete exposure *si opus sit*.

APOTHEKERS' PRICES.

In accordance with custom, the Prussian Government have just published the "Arzneitaxe" for the coming year—i.e., the maximum scale which the apotheker is allowed to charge his customers. It is printed in the *Pharmaceutische Zeitung*, and contains the names of 61 remedies which have been reduced, and of 119 which have been advanced in price. Among the increases are powdered jalap, for which the maximum charge will in future be at the rate of 3d. per 10 grammes, or 9d. per oz.; musk, which may be charged 10s. per gramme (285s. per oz.); and powdered castorum, 4½d. per gramme, or 10s. 10d. per oz. The price reductions include carbolic acid, in crystals or liquid, to ⅔d. per 10 grammes, or 4s. 6d. per lb.; powdered acacia, for which the customer may be made to pay at the rate of ½d. per gramme (1s. 6d. per oz.) for 10 grammes or less, and of 10d. for larger quantities; and quinine. For the last-named drug the maximum price next year is to be at the rate of ½d. for ⅓ gramme (14s. 3d. per oz.), or at that of 4s. 3d. per oz. for quantities of 1 gramme or more. If the apotheker keeps to his maximum, those who know the scale are not likely to order their quinine by the ½ gramme.

U.S.A. TRADE-MARKS.—The following were registered on December 6:—"Exhedonic," for a dentist's liquid anæsthetic, by G. M. Miller, Detroit, Mich.; "Chillifuge," for ague-cure, by F. A. Dicks, Natchez, Miss.; "Witch Cream," and figure of a witch, for a medicated toilet preparation, by C. H. & J. Price, Salem, Mass.; "Botania," for a medicine, by the Botania Company, New York; "Cafétonique," for a dyspepsia remedy, by Keasby & Mattison, Ambler, Pa.; "Presto," for liniments, &c., by F. P. Foltz, Abingdon, Ill.; "Quickheal," for salves, &c., by F. J. Lockwood, Bridgeport, Conn.; "Cherry Ripe," and "Kashu," for flavouring extracts, by J. Fance, Bros. & White, Philadelphia. Registered December 13:—"Dr. M. Andresen's Amidol," also "Metol," for photographic developers, by Actien-Gesellschaft für Anilinfabrik, Berlin; "Royaline," for carpet-cleansing compound, by J. S. Silver, New York; "Dulcin," for a saccharate similar to saccharine, by Lehn & Fink, New York. Registered on December 20:—"Sylvan Laxative Gum Drops," by Sylvan Remedy Company, Peoria, Ill.; "Cream of Dates," for a laxative medicine, by M. E. Ogborn, San Francisco, Cal.; "Earl's Best," for pills and granules, by L. D. Mereness, Sharon Springs.

REVIEWS

AND

LITERARY NOTES.

Commercial Organic Analysis. By Alfred H. Allen, F.I.C., F.C.S. London, 1892: J. & A. Churchill. Second edition. Volume III., part 2. 8vo. Pp. iv. + 584. 18s.

It has been given to few scientific writers to experience during their lifetime the sensation, dear to poets and essay writers, of knowing that the first editions of their works sell at a premium, and, consequently, are classed amongst "rare books." That sensation Mr. Allen knows, and probably it may be some consolation for the regret which he must feel that the first edition of "Commercial Organic Analysis" was not a bigger one. At the moment we can only recall two modern chemical works which have been marked "rare"—viz. Kingzett's "Alkali Trade" and Hurter's "Alkali-makers' Pocket-Book." These have been sold much above the published prices, and the original Vols. I. and II. of Mr Allen's book are now similarly placed. This is the more surprising when we consider that the volumes relate to a branch of chemistry which is ever changing, ever shifting, and the explanation must reside in the fact that the methods and processes described by the author have far more than a tentative value. In one sense the reviewer is glad of this circumstance, for it relieves him of a weighty responsibility, in attacking such a volume as that now before us, to know that the public verdict (derived from practical experience, too) has stamped a work with approval.

The accumulated knowledge of recent years has compelled the author to divide the original volumes, and the third one is made into three parts, of which the second includes subjects of great importance to medicine and pharmacy. These are the following:—Amines and ammonium bases; hydrazines; antipyrine; aniline and its derivatives; pyridine, quinoline, acridene; reactions, isolation, and synthesis of vegetable alkaloids; coniine, nicotine, tobacco; aconite bases; mydriatic alkaloids; cocaine; morphine; morphometry, opium; strychnine; cinchona alkaloids, quinine-testing, cinchona-barks; berberine and hydrastine; caffeine and theobromine; tea, coffee and cocoa. Some idea of the thoroughness with which the subjects are treated may be gathered from the fact that 44 pages are devoted to the aconite bases, 27 to atropine and its allies, 23 to coca alkaloids, 67 to opium alkaloids, and 79 to those of cinchona; while tea, coffee, and cocoa occupy 73 pages. It is further acknowledged that these and other of the more important sections of the book have been read by persons whose occupations are closely related to one or other of them—for instance, Mr. D. B. Dott, Dr. B. H. Paul, and Dr. Alder Wright are amongst those who have rendered service in this respect.

We have already had the opportunity of publishing in THE CHEMIST AND DRUGGIST extracts from the proof-sheets of the volume as it was going through the press, and it will be recollected that, while the author does not vouch for the accuracy of the work of observers whom he quotes, he has taken care to exclude from it those methods which are palpably incorrect, and in many cases to confirm or modify processes or tests. In reading the volume this characteristic is again observed, and it is further noticeable that, although the work is brought down to within a few weeks of publication, the author has succeeded in relieving it from that scrappy appearance which is generally associated with compiled books. The purely analytical work dealt with in the volume is within the domain of the pharmaceutical chemist—indeed, since in the Major examination the chemistry of the more potent drugs is being specialised, it would be well if students or their teachers would make this part of "Commercial Organic Analysis" a subject of study, for in no other text-book are the more important alkaloidal medicines so fully and intelligently treated. We have found comparatively few errors in the book. On page 274 the "sodium ray" (ray) is spoken of. We do not find any reference to Australian opium in the section on that drug.

Perhaps it is not generally known that it has been produced on a commercial though small scale. We analysed a sample of it about six years ago, and found its morphine value to be 10 per cent.

If we may regard the exclusion of those facts from Mr. Allen's volume as an omission, it is a tribute to his care that we have not been able to make any other note of the same kind in perusing the volume.

Anæsthetics, their Uses and Administration. By Dudley Wilmot Buxton, M.D. Second edition. London, 1892: H. K. Lewis. Crown 8vo. Pp. 222.

WHATEVER opinions may be regarding the relative value of the rival anæsthetics, ether and chloroform, or of the custom of specialising in the administration of these and other anæsthetic bodies, there can be no difference of opinion in regard to the necessity for all medical practitioners, and probably also chemists and druggists, having such an acquaintance with the properties and uses of anæsthetics as is presented in this book of Dr. Buxton's. It is an exceedingly readable book, the historical matter, systems, and instruments all have a fascinating interest at the present time, and the manner in which Dr. Buxton treats these topics as well as the practical details of administration, precautions, physiological action, and pathological appearances, is very satisfactory. Nitrous oxide gas, ether, chloroform, A.C.E. mixture, amylene and several other minor anæsthetics, and cocaine and other local anæsthetics are dealt with fully. The chapter on "the open method" of administering chloroform seems to lack appreciation of the fact that it is under this method that the smallest number of deaths occur. The chemistry of the book is a little weak—e.g., the tests for the purity of ether (p. 64) are inadequate; chloroform is not prepared from proof spirit (p. 95); nor is ether ever found in it (p. 96). The author gives half-a-dozen tests for detecting alcohol in chloroform (quite a waste of space after mentioning specific gravity), but does not even mention the smell-test. It is the higher alcoholic products, not methyl alcohol, which colour sulphuric acid black. Cocaine oleate is not soluble in water (p. 181)—but all the paragraphs on the physical properties, preparations, &c., of cocaine should be rewritten to get rid of inaccuracies. The volume is abundantly illustrated.

Manual for the Volunteer Medical Service. By Reginald Sleman, M.A., Surgeon-captain, Army Medical Reserve of Officers, and 20th Middlesex ("Artists") R.V.; Lecturer and Instructor Volunteer Ambulance School of Instruction. London: Kellier & Co., 33 King William Street. 2s.

IT may be useful to some chemists to know that such a book as the one named above has been published. It appears to be very exact in regard to the rank and etiquette of the officers who serve in the Volunteer Medical Service; but it does not enter very fully into details in regard to the duties of this staff. We gather that there are in Great Britain fourteen companies of one hundred men each, serving the country in this capacity. A company is composed of three medical officers, one quartermaster, one first-class and two second-class staff-sergeants, four sergeants, two buglers, eight corporals, and seventy-nine privates. There are examinations for officers, and these, it appears, can, and often do, join the Army Medical Reserve, in which, as we understand, they can serve at the same time as in the Volunteer Medical Service. In the Army Medical Reserve they are paid at the rate of 10s. for attendance on twenty-five persons annually. Mr. Sleman's manual is a compilation which will be found very useful by those who wish to get information in regard to the services named.

The Practical Polish and Varnish Maker: A treatise containing 750 practical receipts and formulae for the manufacture of polishes, lacquers, &c. By H. C. Standage (*Practical Chemist*). London, 1892: E & F. N. Spon. 8vo. Pp. x. + 260.

THIS is one of the most extraordinary books which we have ever read. The author in the preface vouches for the accuracy of his information. He says, "Each recipe is

clearly given as regards the precise proportion of the several ingredients to be used, and the directions for preparing each product. If these details be faithfully followed, a failure cannot result." Again, "Readers will be perfectly confident in the reliableness of each and every formula"; and again, "The sources from which his [the author's] information has been drawn are perfectly reliable and practical." These statements are so definite that the author cannot shirk the consequences of the appalling blunders which are evident on almost every page of his book. As we should require a volume of equal size to expose all these blunders, we must confine our comments to some typical specimens. The first chapter is on "Ingredients Used in Making Polishes, &c." Here ethylic alcohol occurs in the following forms:—60, 70, 80 per cent., &c. (which do not exist in English commerce at all), absolute alcohol, spirits of wine (90-per-cent.), and rectified spirits (said to be a stronger spirit), proof spirits, and methylated spirit (of the presence of mineral naphtha in which the author is unaware). This is a disastrous beginning. Immediately after he confuses amber with ambergris, red oxide of iron does duty for minium, "Lynne" and "Linn." stand for Linnaeus, we have "annatto" spelled in six ways, but not one of them the right way; we are told that the addition of "essence of terebene" facilitates the bleaching of wax owing "to the formation of ozone by the oxidation of the added substance"; bisulphide of carbon is made "by a combustion of carbon in sulphuric vapour," and "as this liquid is very volatile it must be stored under water." We pass on through C's, where the inaccuracy of statement, especially in regard to copal, is positively bewildering, and, wondering as we glance at "driers" what "cobalt of manganese, chloride, or sulphate" may be, we come to the ether paragraph, where the author chides us for speaking of that solvent as "sulphuric ether." It is not so, for it is "obtained by distilling spirits of wine with sulphur." In these thirty-two pages of ingredients there are many other passages which we have marked, but we must refrain: THE CHEMIST AND DRUGGIST is not a comic paper.

Of the formulæ we may say in a sentence that the majority of them in which alcohol is required show no respect whatever to what may be purchased from druggists or drysalers. The fact is that many of the formulæ are translations from a French work which is noted neither for accuracy nor intelligence, and in their English dress the formulæ look, if anything, worse than they are in French. A few examples will support this statement:—

French Polish.—Shellac, $4\frac{1}{2}$ oz.; dragon's blood, 1 oz.; turmeric, $7\frac{1}{2}$ grs. (troy); alcohol, 50 oz.

Universal Lacquer—Bleached shellac, 60 grs.; Manilla copal, 60 grs.; mastic, 60 grs.; boracic acid, 1 gr.; alcohol, $2\frac{1}{2}$ lbs. (imagine the body of this lacquer).

A Bookbinder's Lacquer.—Shellac, $8\frac{3}{4}$ oz.; oil of lavender, .525 oz.; gamboge, 1.05 oz.; alcohol, $2\frac{3}{4}$ lbs.—In two succeeding formulæ .175 oz. of oil of lavender is prescribed.

Black Lacquer for Leather.—Borax, 4.4 oz.; shellac, 4.4 oz.; water, 22 oz.; logwood, 4.4 oz.; water, 4.4 oz.; green vitriol, 3.3 oz.; water, 3.3 oz.

We should like to know who is prepared to weigh .07 oz. of camphor, or 1.05 oz. of the same, or 4.37 oz. of elemi? If any succeed perhaps they will also manage to measure .35 oz. of alcohol for one recipe and 3.15 quarts for another. These little difficulties are only incidental to the formulæ; it is in the compounding that ingenuity has full scope. We find, for example, gum arabic in a spirit varnish, and it must be dissolved. There is a furniture-polish containing linseed oil, turpentine, dragon's blood, resin, alum, iodide of potassium, sulphuric acid, and nitric acid; a plate-powder containing 8 oz. of chalk and $3\frac{3}{4}$ oz. of liquids; a polishing-liquid for gold and silver lace consisting of shellac, dragon's blood, turmeric and alcohol; a black-harness lacquer with laudanum as an ingredient; another lacquer with 2 grs. of saffron in a pint of spirit, which we must digest for twenty-four hours in the sun's rays if it happen to be summer; a gold lacquer consisting of 1 part of asphaltum and 10 parts of tar oil; a sandarac varnish for furniture, of which the ingredients are sandarac, 13.12 oz.; mastic, 4.37 oz.; powdered glass, $8\frac{1}{2}$ oz.; alcohol, .35 oz.; Venetian turpentine, $2\frac{1}{2}$ oz.; and the author directs us to dissolve the resins in the alcohol.

The book is full of vagaries such as these, and it is difficult indeed to pick out formulæ which may on trial—and

that is obviously necessary—turn out to be workable. Enough has been said to show that the author's prefatorial statements are mere bombast, and that he apparently does not possess the knowledge of polishes and varnishes which anyone attempting to write a book on the subject should possess. What is more regrettable is that the name of such publishers should be attached to a volume so unworthy of their reputation.

Katalog der Drogen-Sammlung von Brückner, Lampe & Co.
Berlin, C., 11 Neue Grünstrasse.

THE eminent wholesale drug firm whose name appears at the head of this paragraph send us a catalogue of the museum of drugs and chemicals collected by them since the foundation of the firm in 1750. The collection numbers over 3,000 specimens, and altogether apart from its scientific and historic importance must be of immense value to a firm actively engaged in the commerce of drugs. As an example of the completeness of the collection we may mention that it contains about 130 specimens of cinchona bark alone—an assortment which is probably unsurpassed outside public museums and the collections of some few quinine manufacturers. There are 115 kinds of tea (which is a recognised article of a wholesale druggists' trade in Germany), and very full selections of gums, roots, seeds, and leaves. In 1859 Dr. Carl Lampe, then the senior partner in the house, presented a large part of the collection to the University of Leipzig, and was made an honorary doctor of philosophy and medicine in recognition of the gift. The collection, which is open to visitors, has just been rearranged by Dr. Theodor Waage, who has also prepared the catalogue.

How to Give Gas. By T. E. Constant, M.R.C.S., L.R.C.P.
L.D.S., Eng. London: J. P. Segg & Co. 8vo. Pp. 36.
1s. 6d.

THIS paper, as the author calls it, affords an hour's profitable reading. It lucidly describes how nitrous oxide is administered to dental patients, and although Mr. Constant specially addresses medical men, all who are engaged in dentistry will be the better for acquainting themselves with his hints and precautions.

Annual of the Universal Medical Sciences. Edited by Charles E. Sajous, M.D., and seventy associate Editors.
1892: The F. A. Davis Company. Five vols. 8vo.
About 500 pp. each. 4l. 7s.

THIS extremely useful work is still kept up to the standard of excellence struck by the editors from the first. For those who have the need for a thorough epitome of the world's medical literature, and of the progress of medical science amongst civilised nations, there is no other work than this published which meets their wants in the highest sense.

UNDER the authority of the Government of Ceylon, Dr. Henry Trimen, F.R.S., director of the Royal Botanical Gardens in that colony, is engaged in preparing for publication a "Handbook to the Flora of Ceylon." The work will be illustrated by 100 coloured plates of the more interesting species. All the known species will be fully described and much local information afforded, with a view to render the book of use to residents in the island. The first part, accompanied by twenty-five plates, is expected to be ready by the beginning of 1893. The work will be published by Messrs. Dulau & Co., Soho Square, London.

Chemistry (Catechism Series), Inorganic and Organic. Edinburgh, 1892: E. & S. Livingstone. Two parts. 1s. each.

WE presume that these paper-covered booklets are intended for students to use as quiz-books. For that purpose they may be useful, the principle being that of questions and answers: they are bad text-books.



Notice to Retail Buyers:—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.

It should also be recollected that for many articles the range of quality is very wide.

42 CANNON STREET, E.C., January 5.

Fogs versus Drugs.

No less than seventeen firms had declared goods for sale at the first drug auctions of the year, which were to have taken place to-day. But when Wednesday morning came a thick greasy fog enveloped the City and remained hanging over the brokers' sale-rooms until the afternoon was well advanced. Only a few druggists ventured out to inspect the goods exhibited, and these had to give up all attempts at valuing, the light being much too deceptive to enable them to price drugs such as senna, cardamoms and the like, in which colour is one of the dominating factors. About mid-day one or two gentlemen who usually take the initiative in these matters decided that the drug auctions should be postponed until Friday at 10.30 A.M., but that the vanilla, of which 295 boxes had been declared for sale, should be offered at 3 P.M. on Thursday afternoon. This decision was generally acquiesced in, though some of the druggists and a few brokers expressed much dissatisfaction, as Friday is a most inconvenient day on which to hold public sales. The spice auctions, which are usually held on Wednesday, had already been postponed also on account of the fog until Thursday, but at the moment of writing the conditions for valuing goods are, if anything, rather worse than yesterday. Therefore these sales have again been put off until to-morrow, and it is not likely that the inauguration of the year's auctions will be brilliantly successful. The drug sales are likely to last until a late hour to-morrow afternoon, for, not counting the vanilla, 1,982 lots will be offered, and an average of 300 per hour is considered a good one.

WHAT THERE WILL BE ON SALE.

The drugs to be offered at auction include 137 cases of *Asafetida*, a gum of which the new season's crop generally makes its appearance at the London sales in the winter months, 185 boxes *Cardamoms*, 89 bales *Sarsaparilla*, including a fair proportion of Jamaica root, 246 cases *Benzoïn*, of which the bulk is Sumatra gum, and about 43 cases represent the Siam variety, 122 bobbins *Cannabis indica*, 131 packages *Socotrine* and *Zanzibar aloes*, quite enough to bring down the price if pressed for sale, 182 cases *Curaçao aloes* and only 18 boxes of *Cape aloes*. *Rhubarb* is represented by 229 cases, of which the great majority will no doubt be bought in, and there is a plentiful supply of *Cubeb*s, totalling up to 126 bags. *Eucalyptus oil* is also plentiful. The 54 cases advertised are mostly Australian, and several lots can already claim previous acquaintanceship with the auctioneer's hammer. Two cases, by the way, come from Natal, and are, we believe, the first consignment from that colony offered at public auction. *Tonquin pod-musk* is sparingly represented by less than 20 tins, but of *Buchu* leaves there are 31 bales, though this figure includes a shipment of 20 bales from Mossel Bay, of which no samples had yet arrived on Wednesday morning. The specimens shown were mostly round, and rather yellow mixed leaves. *Tinevelly Senna-leaves* are scarce—334 bales is the total sum. Fifty-eight bales of *Rio*, and no less than 86 bales of *Cartagena epéacuanha* make up the supply of that drug. It is pro-

bably safe to reckon upon lower prices for the last-named variety. Of *China star-anise* 110 cases are offered by four different brokers, and the quotation which will result from competitive sales of this drug is awaited with some interest. Among the less important drugs we noticed about 170 lbs. of genuine *Opoponax gum* from Bushire, in small conglomerated orange-coloured grains, rather mixed with earthy matter; a small parcel of *Japan-refined camphor*, in tablets; rather plentiful supplies of *Arcea-nuts* and *Anatto-seed*: 16 90-lb. bales of Ecuadorian *Red cinchona-bark*, in split quill, all damaged, not particularly fine, but pretty certain to fetch a high price, 108 bales *Cascara sagrada*; and 49 bales *Jalap*, including some very small and dusty pieces, described as genuine Tampico. There are a few packages of *Gum kino*, which is just now a very scarce drug, and a new arrival of Chinese *Cantharides*. *Star-anise oil* is also offered by several brokers.

Next Tuesday's *Quinine-bark sales* will witness the offer of a very mixed assortment. Up to the present 1,120 bales East Indian, 361 Ceylon, 131 Java, 606 West African, and 300 Cuprea—a total of 2,518 packages—have been declared. But it is likely that more will be brought forward.

"Spent Ginger."

With reference to the note on the adulteration of spices in our last number, and to Mr. Grierson's letter in the present issue, it is, perhaps, worth while to call the attention of the authorities to the fact that, according to the official Custom House returns, 27 cases of "spent ginger" were imported into London from Hamburg, per ss. *Wega*, on January 2. They were consigned to "order," which deprives the firm concerned in the transaction from the free advertisement we should have been glad to give them here; but the Customs officers can, no doubt, if they choose, easily trace the consignee, and introduce the enterprising traffickers who are willing to pay freight on an article for which there is no legitimate use short of employment as fuel, to the lethargic individuals who in this city are charged with the duty of setting the Food and Drugs Act in motion, and from whom the Legislature certainly expected greater achievements than the prosecution of pennyworth-of-milk retailers.

Borax and Quicksilver in California.

A company has been organised in England (says the *Oil, Paint, and Drug Reporter*) to work the borax and soda deposits of Inyo county, California, which are very extensive. The activity in borax-mining in that State is very great at present, and the total export for the eleven months of the year has reached nearly 13,000,000 lbs. A new quicksilver find in Santa Clara county, California, excites a good deal of interest among the quicksilver-men. Reports as to its richness are becoming more and more pronounced every day. It is rumoured that fresh workings are being opened in the New Almaden itself, and that they nearly equal those which for so long have rendered that mine famous.

The Metric System.

The Chancellor of the Exchequer and the President of the Board of Trade have agreed to receive on January 25 a deputation of the new Decimal Association, a body having for its object the promotion of the adoption of a decimal system of weights, measures, and coinage in the United Kingdom. The list of members of the Association contains, we notice, the names of several firms associated with the drug business. There are, says the Secretary, over 400,000,000 of the earth's inhabitants using the metric system, and were England to adopt the metric system it is reasonable to believe that one universal system of weights and measures would soon rule throughout the globe. The saving of the time at present expended in our schools in learning the almost endless tables of weights and measures and sums of compound arithmetic that would ensue from the adoption of the metric system is estimated at one year's training, though no grounds for arriving at that conclusion are given.

ACID (CARBOLIC).—We hear that another meeting of the so-called convention of makers of crude carbolic is being held to-day, but further particulars have not transpired. The market for crystals remains firm but unaltered; but

liquid has sold at higher rates, a fair amount having changed hands to-day at 1s. 7d. per gallon for 95 to 97-per-cent. Crude 35-per-cent. is quoted at 1s. 6d. to 1s. 6½d. per gallon.

ACID (CITRIC).—The market is rather firm at 1s. 5½d. per lb. on the spot, though it might, perhaps, be possible to shade that quotation very slightly. The following figures relate to the total exports from London during the last four years, in hundredweights:—1889, 6,056; 1890, 6,207; 1891, 5,170; 1892, 7,318.

AMMONIA SALTS.—*Carbonate* in jars is quoted at 3¼d., and in casks or kegs at 3d. per lb. The price of rough *Muriate* is 21s. 6d., and of white ditto 26s. 6d. per cwt.

BLEACHING-POWDER is held for 8l. 5s. to 8l. 10s. on the spot; 7l. 10s. for softwood casks f.o.b. Liverpool, and 7l. 15s. f.o.b. Tyne. For delivery throughout the year the prices are 5s. less than here quoted.

CAMPHOR (CRUDE).—Very firm at 180s. per cwt. for *Japanese* on the spot, the same kind for January-March shipment is offering at 172s. 6d., c.i.f. terms. A sale of 75 piculs November-December at 172s. 6d., c.i.f., was reported recently. *China* camphor on the spot is quoted for 162s. 6d., but this price is more or less nominal, as none is known to be offering. The price for January-March shipment is 157s. 6d., c.i.f. terms.

CAMPHOR (REFINED).—The English manufacturers are now all quoting the same price—namely, 2s. per lb. for bells in any quantity. German refiners ask 1s. 11½d. net, but second-hand holders offer slightly below that figure.

CHLORATE OF POTASH cannot now be had at less than 8½d. per lb. for January delivery; February is quoted at 8¼d.; March at 8d.; and the second half of the year at 7½d. per lb.

CINCHONA.—The exports from Java during the month of December were heavy—980,000 lbs. all told. The Java cinchona offered at the Amsterdam auctions during the last five years was composed as follows:—

—	1892	1891	1890	1889	1888
	Kilos.	Kilos.	Kilos.	Kilos.	Kilos.
Government plantations	286,101	267,267	350,576	369,703	353,423
Private plantations	3,588,900	3,342,113	2,920,478	1,690,898	1,082,224
Totals ..	3,875,001	3,609,380	3,271,054	2,060,601	1,435,647

In 1891 the quantity of bark exceeding 5 per cent. sulphate of quinine value was 807,633 kilos.; in 1892, 1,110,755 kilos. The total quantity of quinine in the bark sold at auction was 131,620 kilos. in 1892, against 135,395 kilos. in 1891. The stock of bark in Amsterdam on December 31 was 11,268 packages in 1892, against 5,279 packages in 1891. The total equivalent of quinine in the bark offered at the auctions was 168,918 kilos. in 1892, 140,143 kilos. in 1891, 121,420 kilos. in 1890, and 77,090 kilos. in 1889. The average quinine percentage was:—1892, 4.50; 1891, 4.08; 1890, 4.00; 1889, 4.12. The imports of cinchona bark into the United States during the first ten months of the year were 2,835,699 lbs. in 1892, against 2,168,778 lbs. in 1891.

CLOVES.—There has been great excitement in the market for *Zanzibar* cloves this week, and many thousands of bales have changed hands at fluctuating prices, closing firm at an advance of fully 40 per cent. since the close of last week. Last night business was done in fair quality on the spot at 4¼d. per lb., and to-day there are further sellers at that figure, but no transactions have been reported. It is stated that the rise is entirely due to the operations of a syndicate of speculators.

COCA-LEAVES.—A new lot of good bright Huanoco leaves is being offered at 1s. 6d. per lb.; bids of 1s. 5d. have been refused for it.

COPPER (SULPHATE).—A very firm market, at 15l. 15s., f.o.b. Liverpool, for ordinary brands, and 16l. 5s., f.o.b., for fine qualities. The London prices are 15l. 15s. to 16l., according to brand.

CUMIN SEED.—Several parcels of *Malta* cumin have been sold last week at the parity of 42s. 6d. per cwt.

FENUGREEK SEED.—In Liverpool fine *Bombay* seed has been sold at 9s. 3d., declining to 9s. per cwt.; and 20 tons *Alexandrian*, to arrive, at 8s. 3d. per cwt. ex quay.

GENTIAN ROOT has become somewhat more plentiful, and is now offering at 17s. 6d. to 18s. per cwt. for good quality.

GINGER.—The latest advices from Calcutta report that the stock of Bengal *Ginger* there is gradually shrinking into nothingness. Buyers must pay famine prices to obtain supplies. *African* ginger is advancing here, up to 33s. per cwt. having been paid for fair quality. *Cochin* ginger is also dearer, with sales of 400 bags rough washed at 55s., and 200 cases, C cut, at 67s. to 68s. per cwt.

GUM ACACIA.—*Soudan* gums still continue to arrive, and are stored up as they come to hand, for the consignees are by no means disposed to meet the market and buyers operate very carefully. The only sales reported recently have been 27 serons *Ghezirah* at 33s. 6d., and 45 serons *Sorts* at 60s. to 72s. 6d. per cwt. according to quality. For *Senegal* gum (Galam) 49s. per cwt. has been paid, and for red *Brazilian* 20s. per cwt.

GUM TRAGACANTH.—The Persian crop is reported to be only one-third of last year, "but," said the broker who made that announcement, "don't believe me."

HONEY.—The stock of *Chilian* honey in Liverpool on December 31 was 3,070 barrels, but of *Californian* there were only 170 cases in first hands. Small sales of the latter variety continue to be made at from 45s. up to 52s. 6d. per cwt., according to quality.

INDIARUBBER is rather firmer, and there are now buyers of fine *Pará* on the spot at 2s. 10½d., and for delivery at 2s. 10d. per lb.

INDIGO.—The sales of *East Indian* indigo commence on January 30. Up to the present 3,850 cases have been declared, of which 2,200 are *Kurpah*, 1,000 *Bengal*, 390 *Madras*, and 260 figs. The first sales of *Central American* took place on Wednesday, and 476 serons were offered, the whole of which sold with spirited competition at an average advance of 9d. per lb. on the last auction. *Sobres*, ordinary to good, 4s. 8d. to 5s. 5d.; common to good *Cortes*, 3s. 8d. to 4s. 10d. and *Mexican*, at 3s. 11d. to 4s. 5d. per cwt.

IODINE is unchanged, at 9d. per oz. for crude. All the iodine products are steady in price. There is no definite official news yet regarding the renewal of the convention.

IPECACUANHA.—Only three packages of *Brazilian* root have been imported this week. They came by the *Elbe* from Monte Video.

JABORANDI.—There is a parcel afloat for Liverpool, which is offering at 1s. 3d. to 1s. 4d. per lb., c.i.f. terms, for "good merchantable quality."

JALAP.—Sales have been made privately this week at the parity of 1s. 9d. per lb. for good heavy *Vera Cruz*. That is the price now asked by holders.

LOVAGE ROOT has become very scarce, and from 100s. to 105s. per cwt. is asked for parcels still available.

MERCURIALS.—The present prices for mercurials are:—*Calomel*, 2s. 8d.; *Corrosive sublimate*, 2s. 6d.; *Mercurial ointment*, 1s. 8d.; *Red and white precipitate*, 2s. 11d.; *Blue pill*, 1s. 8d.; and *English Vermilion*, 2s. 3d. per lb.

OIL (CASTOR).—*Italian* oil is held at 33s. 6d. to 35s. 6d. per cwt., c.i.f. London, according to quality. In *Calcutta* stocks are said to be very small, and prices rising.

OILS (ESSENTIAL).—The manufacturers of English *Clove oil* have raised their price 4d. a lb.—namely, to 2s. 10d. for best, and 2s. 9d. for second quality oil; if cloves are advanced further there will be a fresh rise. American *Peppermint oil* H.G.H. is quoted at 11s. 9d.; and for *Menthol* on the spot 11s. 3d. per lb. is asked. News comes from France that *Neroli* has advanced there during the last few days at the rate of 9d. per oz., which makes an increase of from 10 to 15 per cent. in value. Turkish *Geranium oil* is also very scarce, and holders now require 13s. to 14s. per oz. for it. Oil of *Star-anise*, in consequence of arrivals by the *Polyphemus* and *Cardiganshire*, is much lower on the spot, and

may probably be bought to-day at 6s. per lb., although it is said that sales have been made at 6s. 2d. per lb. In *Cassia oil* there is no change; 3s. 4d. per lb. is wanted for fair quality.

OIL (OLIVE).—The high prices asked in Italy, especially for fine eating-oils, are impeding business to some extent. It is said that there is hardly enough of the oil made this season to supply the ordinary requirements in Italy. Reports from Nice state that it is probable that in the coming spring the prices of olive oil on that market will be higher than they have been for many years. The olives throughout Italy have suffered very considerably from disease, and in oil districts the crops are small and of very poor quality.

OPIUM.—There is no change in the London market, but it should be recorded that soft shipping kinds are exceedingly firmly held. Many parcels have been taken off the market. The total stock here is said to be nearly 1,000 cases less than at the corresponding period of last year. "Our market has been very active this week," writes our Smyrna correspondent on December 24, "the sales amounting to 100 cases of new current manufacturing from 7s. 5d. to 7s. 6½d. per lb. f.o.b., and for the present holders are not disposed to give way owing to the firmness of the consuming markets. The arrivals in Smyrna to date are 3,685 baskets, against 2,837 last year, and about 800 still exist in the producing districts. Our stock unsold is about 1,300 baskets."

ORANGE-PEEL.—Holders still ask 1s. 9d. per lb. for good thin-cut new Malta, but as there have been several arrivals they may be compelled to accept a little less.

ORRIS-ROOT.—The Italian holders still keep the supplies at high prices—94s. for selected Florentine, 82s. 6d. for second quality, and from 72s. 6d. down to 55s., according to quality, for Verona; all these prices are f.o.b. Leghorn.

QUICKSILVER.—The importers have raised their quotation slightly, 6l. 5s. being now their price; second-hand holders offer at 6l. 4s. 6d. per bottle.

QUININE.—We hear that a small sale of German bulk (3,000 oz.) has been made on the spot at 9½d. per oz., but that may be called slightly over the market value, which is 9½d. per oz. There is very little offering, however, and the tone of the market is firm. Bids at 9½d. per oz. have been refused this week. The imports of quinine and other cinchona salts into the United States for the first ten months of 1892 were 3,004,105 oz., against 2,200,606 oz. in the corresponding period of 1891.

SAFFRON is now very low in price; best Valencia may be had at 24s. 6d. per lb.

SHELLAC.—The market this week has been very excited, but closes quieter. There has been a particularly severe run upon button lac, in which, it is said, there is something like a corner being worked up. For first quality *button lac* as much as 120s. per cwt. is asked; a blocky lot has been sold at 115s., and for seconds, near at hand, 105s. c.i.f. has been paid. *Garnet lac* has also been in strong demand, with sales at 87s. to 88s. per cwt. for good free on the spot. In *fine orange* there has been business in octagon B on the spot at 107s. 6d. per cwt., and in TN orange for delivery has realised the following prices:—January, 97s. to 97s. 6d.; February and March, 98s. 6d. to 99s.; and April, 98s. per cwt.

SODA (NITRATE) is firm at 9s. 3d. per cwt. The Chilean nitrate producers have definitely arranged to continue their combination until March 31, 1894. The shipments for January and February have been fixed at 70,000 tons each month, with an additional 15,000 tons in all should the price in Europe rise above 9l. 10s. per ton. The shipments by steamer for March and April are estimated at 30,000 tons.

SOY.—Still advancing. Sales have been made, it is said, at the rate of 2s. per gallon for China to-day.

SPERMACEI may be had at lower prices, and the last sales (in Liverpool) have been at the rate of 1s. 3¾d. per lb. for *American*, and 1s. 2d. per lb. for *Chilian* refined.

STAR-ANISE is nominally quoted at 100s. per cwt. on the spot, and at 76s., c.i.f., for January-February shipment. It is expected that the price will decline at to-morrow's auctions. The drug is still arriving pretty freely from China. The *Denbighshire* brought 100 cases this week.

TEA.—The tea market is in a very animated condition, and brokers are going about (in open defiance of Hosea Biglow's dictum) prophesying that Indians for price are going up another 1d. or 1½d. per lb. The Indian terminal market is up to 9d. per lb., and the sales have opened this week after the holidays with a very strong tone. Teas for price are showing an advance of about ½d. per lb. Congous are dearer, though the advance is not so marked as in the case of Assams, except for low-priced monings, which are very scarce and wanted. Nothing is being offered in clean Monings under 6½d. to 6½d. per lb., while common Kaisow can be bought nearly 1d. lower. Low old capers cannot now be bought under 4d., after being a few months ago unsaleable at 2½d. per lb., by far the lowest figure ever known. There is no leaf Ceylon to speak of to be bought under 8d., and Pekoes with any pretence to liquor fetch 9d. to 9½d. per lb.

TONQUIN BEANS.—A small arrival of this drug has just taken place in Liverpool.

TURMERIC.—The market last week closed steadily, but with comparatively little business. Good *Bengal* root is held for 23s., split *Cochin* bulbs for 9s. 6d. per cwt.

VANILLA.—At the auctions held this afternoon 295 boxes sold at an advance of 1s. to 1s. 6d. per lb. on long, and of about 2s. per lb. on short beans. The prices paid were as follows:—Very fine crystallised, 8 to 8½ inches, 24s. 6d.; fine ditto, 21s.; 7½ to 8 inches, 19s. to 20s. 6d.; 7 to 7½ inches, 15s. 6d. to 16s.; 6 to 7 inches, 12s. to 15s.; smaller sizes from 13s. down to 11s. 6d. per lb. From Mauritius we hear that vanilla is very scarce there, and that high prices must be paid.

THE LIVERPOOL MARKET.

ANISE (RUSSIAN).—Ordinary good quality last crop offering at 22s. 6d. to 23s. per cwt.

CREAM OF TARTAR.—Very slow of sale, at 85s. for first white.

FENUGREEK SEED.—Sales of yellow Bombay description have been made at 8s. 9d. per cwt.

GINGER.—In *African* a large business has been passing on the spot at 33s., and now 34s. per cwt. is asked.

GUM ACACIA.—Notwithstanding arrivals the market continues very firm. Sales of yellowish soft Soudan sorts at 60s.; white sorts, 75s.; hard ambers, 60s. to 65s. per cwt.

OIL (CASTOR) is slightly easier for good seconds Calcutta owing to arrivals; value now 2¾d. to 2½d. First and second French is unchanged in value.

QUILLAIA.—There is more demand, and in view of shrinking stocks holders are now asking 18l. to 18l. 10s. per ton.

THE AMERICAN MARKET.

WRITING under date of December 28, our New York correspondent reviews the drug-market as follows:—"The week under notice has been curtailed by practically two holidays, as little or no business was transacted on Saturday, while Monday was strictly observed as a holiday in the trade at large. This, of course, cuts down the amount of business done considerably, but, omitting this factor, the volume of transactions is quite up to the average for the season. The last advance in *alcohol* carried the price above that at which *potato spirit* could be imported, and has aroused a storm of opposition in the spirit-trade outside of the trust. Some steps are being taken towards the establishment of a large independent distillery, and efforts are now being made to enlist the aid of the drug and perfumery trades. If any further advance is made in the price of alcohol there will, no doubt, be cable orders forthcoming for the importation of German potato spirit. As it now stands, the margin would scarcely compensate for the trouble. Possibly the Trust people will still further advance their prices, depending upon their plan of exacting a high price and giving a rebate six months after purchase, the payment of the rebate being conditional on

the purchaser adhering to his contract not to purchase alcohol of independents. Further arrivals of Central American *Balsam copaiba* are reported, for which first hands quote 34c. to 34½c., with no sales reported. *Balsam tolu* is dull and easy, 24c. to 25c. being quoted at first hands, with no business doing. *Angostura Tonquin beans* continue dull, and the market is rather weak in tone, at \$2 to \$2.15 in jobbing quantities, as reported by cable last week. *Cascara sagrada* has again declined under lack of demand and full stocks; 8c. is now the quoted price. *Damiana-leaves* have declined to 18c. to 20c.; though really an unimportant drug, its supply is so uncertain and variable that the price occasionally runs up quite high, as has been the case very recently. *Vanilla-beans* have again advanced, and are very scarce, \$4 to \$4.25 is now asked for cuts. *Acetic acid* has at last settled upon a somewhat staid basis, the makers having effected some sort of an understanding. The quotation is 1½c. to 2c. as to quantity. *Gum chicle* has advanced to 38c. to 40c. in round lots, but the high price has checked the demand very materially, and little business is going forward at the moment. A sale of 2,000 lbs. of *Senega* is reported for export at 55c. There have been considerable arrivals of *Mexican sarsaparilla*, which have, however, been taken up, leaving the market firm, at 8½c. for Tuxpan, and 9c. to 9½c. for Tampico. There are evidences of an attempt to break down the market in this staple, as reports are being industriously circulated of an abundant supply in both Hamburg and London. Whether these reports are founded on fact or not, the animus with which they are being used is quite apparent, and the reports *per se* have but little effect. The main factor in the situation is the supply. If that comes forward liberally the holders here may not be able to carry the market; but this is the 'unknown quantity' in the situation, and it may be that the price now ruling is not high enough to bring out large shipments. Such a thing as a positive lack of supplies at the source of shipment is not generally accepted by the knowing ones as even being a possibility. It is merely a question of the price here. If the price is high enough the goods come forward. That is the history of the past. *Oil of peppermint* has stiffened up somewhat during the week, but at this moment it has again quieted down, and \$2.50 to \$2.55 is the general quotation. Some new genuine *Oil of sassafras* has come to hand, for which 40c. is asked. There has been but a very small crop of this oil distilled, as the artificial is becoming so generally popular. *Jalap* continues quiet. *Mexican saffron (safflower)* has advanced to 27c., and is firmly controlled and in light supply. *Jaborandi-leaves* have declined to 25c. to 27c., and are dull at that. *Castor oil* has been advanced ½c. to 14c. to 14½c. per lb. in barrels. *Quinine* is dull. *Opium* is spiritless at \$1.82½ in cases. *Carbolic acid* is higher on a reported combination among manufacturers. The combination in *Chloral hydrate* have again advanced their quotations, and now want \$1.10 for crystals in bulk. *Chlorate of potash* continues to improve. *Nitrate of soda* is quoted firm at \$2.25 for store goods."

THE NEW YORK MARKET.

(Cablegram from our Correspondent.)

NEW YORK, January 4.

THERE have been no marked features of importance in the drug-trade here since last week, but the year's trade has opened fairly well, and prices are generally maintained. *Golden-seal root*, however, is lower. A sale of 4,000 lbs. *Senega-root* has been made, at the rate of 54c. per lb. *Mexican sarsaparilla* keeps very steady. *Mexican saffron (safflower)* has been advanced to 50c. per lb., or almost double last week's quotation.

THE SMYRNA OPIUM MARKET.

(Cablegram from our Correspondent.)

SMYRNA, January 4.

OUR opium market remains very firm at unchanged prices. The total sales since last Thursday are 100 cases fair tale-quale manufacturing opium, at the rate of 7s. 5d. to 7s. 6d. per lb., f.o.b. Smyrna.

THE DUTCH MARKET.

AMSTERDAM, January 4.

All the analyses for the cinchona-bark sales on January 12 have been completed. The manufacturing bark contains 23 tons sulphate of quinine, or 4.55 per cent. on the average. About 12 tons contain 1-2 per cent., 76 tons 2-3 per cent., 121 tons 3-4 per cent., 97 tons 4-5 per cent., 99 tons 5-6 per cent., 57 tons 6-7 per cent., 12 tons 7-8 per cent., 22 tons 8-9 per cent. and 1 ton contains 13-14 per cent. sulphate of quinine.

CLOVE-GROWING IN ZANZIBAR.

THE clove tree, a native of the Moluccas, was introduced into Mauritius in 1770 by the French, and at the end of the century an Arab, Haramel-bin-Saleh, who accompanied a French officer from Zanzibar to Bourbon, took back a small quantity of seeds and plants, and commenced clove-cultivation in Zanzibar. The first plantation was laid down at Mitoni, on the road to Chuani, and the industry rapidly spread.

The different methods by which this cultivation is now carried on are evidently borrowed from the French, and the Swahili word for clove, "garafu," is probably a corruption of the French word "grosfilier."

There are some trees now growing in the island which are said to be nearly 90 years of age, but the average length of life of the clove plant in Zanzibar is from 60 to 70 years.

The great hurricane of 1872, which destroyed nearly all the clove-plantations on the island, wrought such terrible devastation that the average age of the trees now growing may be put down as below 20 years. The age of those in the Sultan's plantation, the largest in the island, is from 16 years to 17 years.

The appearance of most of the Zanzibar clove-plantations is healthy and luxuriant, the height of the more matured trees averaging fully 40 feet, and the branches of the two rows often completely shading the ground. In good situations the trees begin to yield at five years, and in inferior soil at six to six and a half years from planting. The average yield of a tree is about 23 lbs., but it is said that the hurricane of 1872 destroyed trees which yielded 175 lbs. each. The picking of the clove-buds commences in August and lasts for four months, and each tree is generally picked three times in the course of a season. The buds are at first of a pinkish-yellow colour, but they become deeper red as they mature. The stalks and buds are gathered at the same time and thrown upon grass mats, where the buds are picked from the stalks and dried in the sun for six or seven days in succession. The cloves are placed under shelter at night. Green cloves lose about half their weight in drying. The collectors are paid at the rate of 5 pice for each "pishi" of about 6 lbs. of green cloves during the first part of the season, but subsequently they receive payment in kind—viz., half of the quantity collected in good seasons, and a quarter in unfavourable seasons. Gatherers are not paid for the stalks collected. Cloves are dispatched from the plantations to Zanzibar in gunny bags. There is a Government export duty of 25 per cent.; this is paid in kind, and the cloves are heaped in bulk in the Government godowns.

Public clove auctions are now held by Government every fortnight to allow open competition, and especially to admit European merchants.

Zanzibar cloves, which are very dry, can be stored for some time, but Pembas generally arrive damp and are disposed of as early as possible, as otherwise the loss from "shortage" is very great.

A good dry sample of Pemba cloves is smaller and blacker (blackier from having contained much moisture) than a fair specimen of Zanzibar cloves. The latter are generally larger; the red appearance of the dried buds is unmistakable, and they are well-known as "Zanzibar red-heads."

Cloves are generally exported in double mat-bags ("makanda") in preference to gunnies, though there is more shortage in the mat-packed spice; the mat-bags apparently permit a greater absorption of damp. The shortage in the weight of cloves between Zanzibar and Europe equals 8 per cent.

The exports of cloves from Zanzibar for 1890-91 were:—

		Zanzibar		Pemba
1890	.. ..	124,929	frazileh*	385,981 frazileh
1891	.. ..	62,017	"	326,986 "

The comparatively low price of Zanzibar cloves is probably owing to their unpractical mode of preparation as compared with the more valuable East Indian kinds, which are never sun-dried.

BR SH AND FOREIGN CONSULS' REPORTS.

MEXICO.

German Chemicals and Surgical Instruments. In Mexico, if we may accept the German Consul's statements, chemicals have lately been imported from Germany exclusively, with the exception of a few heavy articles such as bleaching-powder, chlorate of potash, and caustic soda, which Great Britain supplies at a lower rate. Sulphuric, hydrochloric, and nitric acid are manufactured in the country. Sulphate of copper—an important article for the Mexican market—is of German origin, but English and American mining companies also import a good deal of English vitriol. Quicksilver is obtained in Mexico, but a good deal also comes from London and San Francisco, and a little Russian quicksilver from Hamburg. Surgical instruments are mostly of Bavarian and Viennese manufacture. If some French goods are still used it is because many medical men have studied in France and follow French methods; but since the Berlin Medical Congress a certain preference for German medicinal preparations and instruments shows itself, and many students already apply themselves to the acquisition of the German language. Optical instruments are principally German, and to a slight extent French or Austrian.

PERU.

Coca-leaves. In 1891 204,922 kilos. of coca-leaves were exported from the Peruvian port of Arequipa. Almost the whole of this was produced in Cuzco, and for the first time a few parcels of inferior quality were received from Bolivia for export by this route. The bulk went to Hamburg, small shipments to New York and Lima.

Matico and Rhatania. The exports of matico from Arequipa in 1891 amounted to 1,362 kilos., and of rhatania-root to 3,854 kilos.

MOROCCO.

Cumin seed. In 1891 the crop of cumin-seed failed in Mogadore, as well as in Malta, and only 51 tons of old seed were exported, of which 23 tons went to Germany.

Gum Arabic. The exports in 1891 were 287 tons, of which white Senegal gum forms the principal item; next to this come gum Amrad and brown Barbary (Berbera) gum, but the two latter are of very inferior importance. The Senegal gum is brought into commerce under the name of white Mogadore gum, and is brought by caravans from Timbuctoo to Tissounin and Tinduff at the Moroccan frontier. There it is taken in barter by local merchants, who carry it to market in Mogadore. Since 1889, the prices have fallen 100 per cent. The highest figure ever attained by this gum was in 1887, after the closing of the Soudan, when it realised 44 dourous per 50 kilos.

Sandarach. The very large crop of 1891 was directly due to the failure of the harvest of other Morocco produce, for in years of plenty the Arabs do not care to take the trouble to tap the sandarach-trees, which is a work requiring great time and trouble, as the trees have to be felled in the summer in order to collect the resin in the autumn. Until last year all the acacia and sandarach exported were sent to London; but since German steamships call at the Moroccan ports, a direct export trade with Germany has sprung up, which absorbed 39 tons of sandarach last year. Sandarach is collected exclusively in the province of Haha, and the only port of shipment is Mogadore.

Orris-root. Since the failure of the orris-root crop in Italy, the Moroccans have begun to apply themselves to the cultivation of orris, and the export increased from 7 tons in 1890 to 52 tons in 1891, while prices nearly doubled.

The exports from Mogadore were in 1891:—

	Germany	England	France	Spain
	Tons	Tons	Tons	Tons
Gumin-seed ..	24	1	13	13
Acacia gum ..	30	253	3	—
Sandarach ..	39½	155	45	—
Orris-root ..	13½	7	32½	—
Beeswax ..	25	129	40	—

SERVIA.

We Take a Back Seat. We are quite out of it in Servia so far as the drug trade is concerned. Last year the importation of drugs increased somewhat, and concessions for five new pharmacies were granted. Nitric, hydrochloric, and sulphuric acids, all of very inferior quality, are imported from Austria and Hungary, and dry plates for photographic use, formerly only sold by Belgium, are now also purchased in Austria. Silver and albumenised paper come from Austria, surgical instruments and bandages from Germany and Austria, mineral waters are still brought from abroad, although the Servian Government are doing what they can to promote the sale of the native waters. Dyes come from Germany and Austria, common varnishes only from Austria, fine varnishes exclusively from England. Perfumes and scented soap come from France, England, and Germany.

SPAIN.

Quicksilver. The Asturian (Northern Spanish) mines produced 120 tons of quicksilver last year, valued at 21,000l., as compared with 60 tons, valued at 12,300l., in 1890; all is exported to the United Kingdom.

Consul Rawson Walker, of the Corunna district, reports that the import of drugs showed an increase from 440 tons in 1890, valued at 15,840l., to 550 tons in 1891, the value being 19,800l., or 3,960l. more.

SPANISH COLONIES.

Cochineal in the Canaries. This is how they grow cochineal in the Canaries: The leaves, from which the cactus-plants (upon which insect feeds) are raised, are planted about a yard apart, and in alleys 2 yards wide in earth from 2 feet to 3 feet in depth. At the end of eighteen months or two years they are ready to receive the insect, which is either dusted into the leaf in the embryo state during the rainless season, or allowed to attach itself to a piece of muslin in the spring, the muslin being laid for a few minutes on to a box full of "madres" (mothers) in a room which is kept at a temperature of 85°, and then fastened on to the leaf by means of the thorns with which the latter is provided.

The female is wingless, and is characterised by the tarsus which is terminated by a peculiar hook. The body is round and fat like a currant, and terminates in two small hooks. When once attached to the leaf she cannot move any more.

The ordinary expenses are stated to be about 30l. an acre per annum, and the yield from 8,000 lbs. to 10,000 lbs. of fresh, or 2,000 lbs. to 2,500 lbs. of dry, cochineal per acre in the summer, although it is said that certain very good land has produced as much as 6,000 lbs. in the summer crop.

Guano is the best manure, as it makes the skin of the cactus tender, and the allowance is about 1,000 lbs. to the acre of ordinary cochineal-bug, or 2,000 lbs. an acre for "madres."

Insects killed by being smoked with sulphur yield white and those killed by shaking in sacks black, cochineal.

Subliming the Peak. A French company has commenced to extract pumice-stone from the base of the Peak of Teneriffe, and it is believed that large quantities of sulphur might be obtained by sublimating the cinders which form the sugar-loaf or summit of the same mountain. The success of both these enterprises is problematical, and cannot be regarded as of serious import to the future welfare of the island.

* A frazileh is 35 lbs.



Memoranda for Correspondents.

In letters for publication correspondents are requested to express their views as concisely as possible.

Correspondents should write on one side of the paper only, and devote a separate piece of paper to each subject of inquiry.

The name and address of the writer should accompany all communications, with, if desired, a distinctive non-de-plume.

Is Water Analysis a Failure?

SIR.—The question that has arisen about the utility of the chemical examination of drinking-water is, in the light of all that has been said and written on the subject, a matter for some surprise, especially when such an eminent medical authority as Sir George Buchanan gives it as his opinion that such examination is valueless in elucidating the much desired information as to whether a given water is fit or unfit for human consumption.

The principles which guide a scrupulous and competent analyst in deciding for or against a water are, when properly and intelligently considered, correct ones. A competent analyst can discover and estimate the amount of impurity present in a water, and with the same sample, under the same conditions, will arrive at exactly the same results, no matter how often analyses are repeated; and he can often state with certainty that compounds of urine are present. On the other hand, he can often certify as to absolute purity. To deny this is to show ignorance of the processes now used in analysis, and ignorance of chemical matters generally. And I hold that it is as wrong to condemn the whole system of water analysis, because in some instances erroneous conclusions have been drawn, or excess of organic matter cannot be said with absolute certainty to be dangerous to life, as it would be to condemn the whole system of medical treatment, because of the failure of well ascertained principles when applied to a single particular case, or because of the carelessness or incompetency of a single medical practitioner.

The analyst condemns water, when on the one hand it contains undesirable and dangerous pollution, and pronounces to be fit for use on the other hand that which contains either no unoxidised nitrogenous matter, or such small quantities as to be in all probability innocuous. He is able to give a positive answer in the case of purity, and in the other case, when he finds a water highly polluted with all the elements of a sewer, he condemns it, even though the sewage may be in itself harmless to health. In the present state of our knowledge I do not see how he can do otherwise, since we are not able to ascertain, by mere examination alone, what are really disease germs. Supposing we are able to identify one or two specific organisms, it will help us little, while the identity of the majority of the causes of infection remains wrapped in doubt or conjecture. The chemist, therefore, in regard to the condition of organic contamination, though demonstrably derived from a urinal, or a cesspit, cannot state absolutely that it is a vehicle of contagion, but in such a case the element of danger is so great that the least fastidious, and I might venture to say best sentinel of the public health, would uphold an adverse judgment sooner than allow such a pollution to enter into human consumption. It would be but poor consolation to those who were forced to drink unoxidised sewage, derived perhaps from some loathsome source, that it was doubtful whether the specific organisms of disease were present or absent. And is it not clear that a water supply contaminated with all the materials necessary for the abundant growth of micro-organisms is in a highly dangerous condition, in the event of the visitation of a plague? What other means besides chemical analysis can reveal this condition?

It has been stated that even a certificate of purity is no safeguard against possible danger, inasmuch as a water containing disease germs may show on analysis no signs of pollution. But this is a very vague statement, and as an argu-

ment against water analysis generally of little importance. The germs of disease are of necessity enveloped in organic matter, and they cannot of themselves escape from their environment, excepting in what must be considered rare instances of the drying and complete oxidation of their surroundings, and their own preservation. Their presence would be accompanied by nitrogenous matter, which would undoubtedly appear in the results of chemical examination, and form a factor in the evidence for condemnation. Therefore a water which shows no chemical impurity is most likely to be free from the cause of disease. Moreover, it is well known that a specific disease requires more than an isolated specific organism for its production.

But apart from the question of infectious diseases, what means is there, excepting chemical analysis, for the discovery of substances, organic and inorganic, which water may contain, and which may be injurious to health? None, you will surely allow.

A case in point which vividly illustrates the effect of drinking polluted water, is the late frightful decimation of the population of Hamburg by cholera. The calamity which overtook that ill-fated city would in all probability have been largely averted, had the standard adopted by English chemical authorities for the purity of drinking-water been in force.

Yours, &c.,

W. M. DOHERTY.

Government Laboratory, New South Wales,
November 22.

The Adulteration of Powdered Drugs.

SIR.—Your note on the subject of pepper and ginger adulteration calls attention to a fact which has long been a disgrace to the spice trade, and is, we regret to say, far from unknown in the legitimate drug trade. We recently had shown to us a sample of "best powdered ginger," which had been bought from a wholesale drug firm of reputed respectability, and which from its fine light colour might readily have passed for a genuine and choice powder. It was, however, devoid of the bright yellowish tinge characteristic of the powder prepared from the finest Jamaica root, and, to quote the words of the gentleman who called our attention to it, "You could eat a pound of it." In these words lies the crucial test. Taste your ginger before you buy it. We made inquiries among the spice-houses about the time this occurred, and were assured that spent ginger was sold by the ton to grinders.

Speaking of adulterated powders reminds us of another instructive case. One of our representatives reported a complaint of one of his customers as to the quality of some powdered slippery elm with which we had supplied him, and which, as we ground it in our own mills, we knew to be beyond reproach. He produced a sample which had been bought from another drug-house, and which was preferred because it was much softer and lighter in colour. Its appearance suggested to us a farinaceous mixture. We examined it microscopically, and it turned out to be potato starch adulterated with powdered slippery-elm bark.

The above facts enforce the necessity of wholesale houses either grinding their own drugs or exercising particular caution in examining the powders they put into stock, and of the retail trade putting all its technical weapons on the defensive.

Fierce competition has, we believe, given rise to many skillful adulterations of powdered drugs, and this is a field in which some of our young pharmacists might gather laurels by the determined application of microscope and test-tube.

It is refreshing to think, however, that genuine powders may still be obtained by paying for them a fair price, although it grieves us to add that retailers who ought to know better often sacrifice the certainty of getting a pure article for the sake of a few paltry pence per pound.

We are, Sir, yours faithfully,

For WILLIAM BLEASDALE & Co.

York, Jan. 2.

G. A. GRIERSON, Manager.

Gas-stoves for Chemists.

SIR.—For years I was annoyed with the various gas-stoves I purchased by each giving off a disagreeable and unhealthy odour of burnt gas. Two years ago I saw Clarke's hygienic

stove advertised in THE CHEMIST AND DRUGGIST, and resolved to again try my luck. I am glad to convey this unsolicited information to any chemist: that they are all they are represented to be—no smell, no smoke, no vapour, no trouble, most economical in use, and not expensive to buy. I do not infer that any gas-stove is equal to a coal fire for comfort, but where a flue is not available these answer the best of any I have tried. Yours respectfully,

Sowerby Bridge, Jan. 3.

M. F. WALTON.

Not Satisfied.

SIR,—I quite think that a coupon system may benefit the retailer and eventually the producer, but not on the lines proposed by Mr. Clarke with his night-lights. A chemist may sell twice forty boxes and then not get forty coupons back, especially if sold in single boxes, as they generally are.

It follows that the poor chemist will occasionally have to make the return on half-a-dozen, and not be able to make up the forty in the six months, so as to get his coupons honoured.

In another way the chemist is about to suffer, unless we combine and try to prevent it. I receive notice from the station-master that the drug-rate which I principally pay is reduced from 50s. to 45s., but when I get the new scale I find that up to 3 cwt. the weights are charged on what was before the scale of a 54s. rate, so that whilst nominally the rate is reduced, virtually it is considerably raised.

GILGEN. (202/23.)

Dublin Chemists and their Assistants.

SIR,—“R. J. D.,” in his letter on this subject last week, corroborates the statement that proprietors will not engage an assistant or entertain an application from one unless he is actually unemployed. “R. J. D.” avers that such has been the practice for the past thirty-five years.

Well, this practice is both unjust and a cruel wrong to the energetic junior assistant who seeks advancement, for it forces him either to attempt to supplant his senior fellow-assistant or to run the risk of a more or less lengthened period of idleness, and perhaps semi-starvation, as his salary was never of such proportions as to admit of savings.

Of course this “principle” among “principals” grinds down the assistant and places him at the mercy of the employer. How many assistants have had through sheer poverty to take the first “sit.” which offered, no matter how small the salary!

Yours faithfully,

QUALIFIED. (202/52.)

SIR,—The higher morality which “R. J. D.” claims for his fellow principals may possibly account for the number of inefficient assistants to be found in many pharmacies here.

It will, I think, be admitted that “employed” men are to be preferred to those who either have dismissed themselves or have been dismissed. If a man comes to know of a vacancy which offers a chance of advancement, I consider it quite sufficient that he inform his present employer of his intention of applying for the vacant post.

Your obedient servant,

PHARMACIST. (203/44.)

Oil of Tar and Rabbits.

SIR,—A few weeks since a gentleman purchased of me some “oil of tar,” saying he was going to use it for catching rabbits. He was in the shop again last week, and informed me how he used it.

When the rabbits were out of their holes feeding he poured a little on pieces of paper and placed them in their burrows, lightly stopping them with earth. The rabbits being afraid to return to their holes, he had a chance of shooting them. He said it had an effect he did not intend, for it so disgusted them that they all migrated, and now not a single rabbit is to be found on his farm.

I think the above gives the information asked for a few weeks since.

Yours respectfully,

LYCHNIS. (202/8.)

Trade Marks in Ecuador.

SIR.—It may interest many of your readers who send their goods to Ecuador to know that they can register their trade-marks in that country. I have just received a despatch from Her Majesty's representative at Quito, informing me “That a treaty has lately been concluded between Her Majesty's Government and that of Ecuador, by which trade-marks will enjoy the same privileges as those accorded either to natives or to foreigners.” He also puts me in possession of the formula necessary for the registration of trade-marks in Ecuador, and recommends to me a gentleman thoroughly acquainted with the practice. There is a heavy penalty according to the law of the republic for infringement, but it appears necessary that all trade-marks seeking such protection must be first registered according to law.

I am, Sir, your obedient servant,

J. SEYMOUR SALAMAN.

British and Foreign Registration Offices, 65 & 66 Chancery Lane, London. January 4.

A Hint About Spray-producers.

SIR,—For the benefit of the makers of these much-admired articles of toilet use, and also for the retailers of the same, I am constrained to write a few lines to point out one very great oversight and defect in their manufacture by quoting a constant objection put forth by retail buyers. A customer sees an exhibition of sprays in my shop, and after a kind of bewilderment with the assortment, decides to have a big one—say, at 7s. 6d. Afterwards I am asked how much it will cost to fill it with the best perfume. On stating the sum (perhaps 4s. or 5s.) the would-be purchaser of the admired spray abandons the idea of having it, and says he will call some other time—probably in the to-morrow that never comes.

What should be done to rectify this, to my mind, great drawback to the sale of spray-producers? Firstly, make them heavier, which would be an advantage, because they would stand firmer; secondly, make them of much smaller capacity. If the makers take this hint, I feel sure they will profit by it.

SPATULA. (166/11.)

England at the Bottom.

A chemist in the neighbourhood of Liverpool, who seems to have recently crossed the Tweed, has been asked for “liniment of electricity” and “ox olyid acid,” and a few more articles of that kind, and he sends his experience to us as a text from which to proclaim the superior education of his native land. Cannot some English chemist who has wandered Caledoniawards prove that original orthographic ideas are not peculiar to the southern part of the island? Not content with stirring up international strife in this way, our correspondent next directs his sacrilegious pen against our venerated Pharmaceutical Society, and compares its proceedings with those of its Dublin sister—much to the advantage of the latter in respect of the way in which the law is enforced. Along with this we get another letter, showing how much superior are the practices of continental nations in regard to pharmacy. Poor old England! Who will speak a good word for her?

DISPENSING NOTES.

Correspondents should consult “The Art of Dispensing” in regard to dispensing difficulties. Difficulties not explained therein may be sent to the Editor, who invites a general expression of opinion upon the under-mentioned topics.

Are Hydrastine Salts Coloured?

199/19. *Anxious* (London, E.) dispensed a hydrastine-sulphate mixture (gr. viij. with glycerine ʒss. in ʒviij.) colourless, but a City pharmacy dispensed it more of a saffron colour. Which was the proper thing?—Hydrastine salts are yellowish, and give yellowish aqueous solutions. See THE CHEMIST AND DRUGGIST, May 14, 1892, page 704. But Squire says they are colourless—or, rather, that the hydrochlorate is—which is contrary to Dr. Martin Freund's

experience. Other authorities whom we have consulted agree with the latter, so that the City mixture would appear to be right.

Quinine-salicylate Mixture.

197/37. *J. C.* would be glad if any readers of THE CHEMIST AND DRUGGIST would kindly give their ideas as to the best means of dispensing the following prescription, which emanates from a popular provincial doctor:—

Quin. salicyl. ..	..	..	..	gr. 48
Acid. salicylic... ..	..	..	..	gr. 24
Syr. limonis ..	..	..	..	℥j.
Aq. ad ..	..	..	..	℥viij.

M. Ft. mist.

Cap. 3ss. ter die ex aquâ post cibo.

Colour of Salicylate Mixtures.

191/68. *Lassie* has dispensed an aqueous mixture containing sodium salicylate, potassium bicarbonate, and syrup of orange. He sent it out of a straw colour (it was made with physiologically pure salicylate): what the customer had before was brown.—The matter is explained in "The Art of Dispensing," page 132. The colour is the result of the action of potassium carbonate upon the salicylate and the orange syrup. The less pure varieties of sodium salicylate are more readily affected by alkali and light.

Colour of a Chlorodyne Mixture.

190/37. *R. C. P.* dispensed a 12-oz. bronchitis-mixture containing 3ij. each of Browne's chlorodyne and vin. ipecac., with ammon. carb. 9iv. It was brown, but the customer had it water-white before. Well, it should not have been: a light brown, gradually darkening through the action of the alkali, is the proper colour.

Ext. Cinch. Liq.

193/73. *Remlap* wants to know if he should use the old B.P. fluid extract of cinchona or the acid one of 1885 when he receives a prescription written since 1885 and containing an alkali. The following is the example he submits:—

Ext. cinchon. liq. ..	..	..	..	3ij.
Tr. morphinæ et chlor. ..	..	..	..	℥xl.
Bismuth. subcarb. ..	..	..	..	3iss.
Spt. am. arom. ..	..	..	..	3ij.
Tr. nucis vom. ..	..	..	..	3j.
Aquam ad... ..	..	..	..	℥viij.

Ft. mist.

Ethically, the extract now official; practically, ditto; and therapeutically the slight chemical change induced by it is more than compensated by the superior alkaloidal value of the acid extract.

Magnes. Carb. in Mixtures.

Rohami (201/10) writes:—"In first-class pharmacies it is customary to use m. c. pond. for mixtures and m. c. levis for inhalations unless otherwise specified. Perhaps the Sheffield chemist sent out the mixture quoted by 'Nottingham' with the sodæ bicarb. undissolved."

Inf. Quassie Conc. 1 in 8.

193/11. *Assistant* had a prescription for inf. quassia conc. (1 in 8) 3xij.; he made it by infusing 1½ oz. of quassia in 12 oz. of water, and it has been returned as being much stronger and darker than the customer obtained elsewhere. The question is, Who was right?—In the absence of a proper standard, concentrated infusions may be anything; but there is little difficulty in arriving at the conclusion that "Assistant" was not right. He appears to have taken "1 in 8" to mean one part of quassia in eight parts of the preparation, whereas the common meaning of the term is 1 part of the preparation makes 8 parts of common or official infusion. For 12 oz. of inf. quassia conc. 1 oz. and 90 grains of quassia is required. To that extent "Assistant" was wrong.

LEGAL QUERIES.

Immediate information on pharmaco-legal matters is available in "Pharmacy and Poison Laws of the United Kingdom," *Alpe's "Handy-book of Medicine-stamp Duty,"* and THE CHEMISTS' AND DRUGGISTS' DIARY page 152 et seq.

200/50. *Boots.*—You cannot enter for the modified examination unless you registered your claim before December 31, 1869.

202/37. *N. E. B.*—The sale of poisons regulations apply to poisonous patent or proprietary medicines in Ireland as well as in Great Britain. The seller is responsible. The Medicine-stamp Acts do not apply to Ireland.

37/37. *Cepia.*—You cannot have a valid patent for a medicine or for anything else unless you sufficiently disclose the way to make the article. The protection is that for fourteen years no one else may make the same compound. Practically, of course, this is no protection in the case of a medicine, because anybody can effect an "improvement" in your formula and get that patented.

MISCELLANEOUS INQUIRIES.

The Editor replies to queries of general interest, in the order in which they are received. Replies are inserted according to the space available. Postal answers cannot be supplied.

Back numbers, containing formulae, educational or other specific information, can be obtained from the Publisher.

191/27. *C. S. B.*—(1) For instructions as to making strontium iodide see the last volume, page 551. The same instructions will serve for making a solution. (2) *Ink-erasing Fluid.*—The only effectual one we are acquainted with is a solution of oxalic acid.

190/5. *Mancunian.*—Infusion of coffee is used in households for giving the cream-colour to lace curtains. A water-soluble orange dye is better, and is used in starch.

189/27. *Saccharin.*—Syrup of Fox's Lungs is an ancient remedy; but a good modern formula is given in THE CHEMIST AND DRUGGIST, May 3, 1890, page 599. Simple syrup coloured with extract of liquorice is generally given.

193/27. *Seltzogene.*—Charges for Seltzogenes should be weighed, not measured. Ten drachms of sodium bicarbonate and 1 oz. of tartaric acid for the 5-pint, and ¾ oz. of acid and 1 oz. of soda for the 3-pint. These are quantities easier remembered than the scruples, and they are practically the same.

193/17. *Cupri Sulph.*—Butter-colouring is now made by dissolving an oil soluble aniline orange in a sufficient quantity of cotton-seed oil or olive oil.

131/22. *T. W.*—To Perfume Fuller's Earth try the following method:—Take 2 grains of artificial musk and triturate with a scruple or so of the earth, adding more of the latter every few minutes until 1 oz. has been used; then add the following mixture:—

Oil of bergamot ..	..	..	3ss.
Oil of lavender ..	..	..	℥xij.
Oil of cassia ..	..	..	℥iv.

Mix well, bottle, and after a few days add to 2 lbs. of the earth. Mix by shaking and sitting.

194/9. *Cobbler's Wax* is made somewhat in the following fashion:—Two parts of yellow resin and one part of

black pitch are melted together, the mixture is removed from the fire, and about 1 part of whale oil is stirred in. The mixture is now poured into a tub of cold water, and as soon as it can be handled it is worked under the water; then, while still hot, taken out and pulled until it has a golden appearance.

184/51. *X. Y. Z.*—Borocitrate of Magnesia—Dissolve 20 parts of citric acid and 6 parts boric acid in a sufficiency of boiling water, and neutralise by the addition of carbonate of magnesia. Evaporate the clear solution to dryness, and powder.

189/22. *A. E. F.*—See reply to "T. W." re scented fuller's earth.

193/31. *H. T. W.*—We have not seen any formula for Warner's kidney-cure. Liverwort is said to be the active constituent of the liver-cure.

196/56. *W. Cox.*—In our Educational number, September 17, 1892.

190/5. *Mancunian.*—Prize Eau-de-Cologne Formula.—*THE CHEMIST AND DRUGGIST*, July 27, 1889, page 153.

194/74. *R. J. F.*—(1) Any maker of chemical apparatus could supply the oven by contract. They are not stocked. (2) See "Pharmacographia" in regard to gummi rub. The best work is one by Mr. Maiden, of the Sydney Technological Museum.

192/40. *J. S.*—Your customer would be the better of a course of Easton's syrup in half-teaspoonful doses.

192/27. *Papain.*—We have no working formula.

The following correspondents will find references to what they want in last week's Index:—192/8 *Old Subscriber*; 197/45 *W. B. R.*

91/92. *Xenophon.*—The Lotion for Rupture is most probably made by adding to a solution of lead acetate (gr. v. to ʒj.) solution of ammonia in excess. The brown colour of the precipitate appears to be due to some organic substance which we cannot detect.

195/15. *Wood Green.*—We do not think that sufficient resistance could be imparted to any of the fibres to stand the heat of the iron. Have you tried slag-wool? It is incombustible and very cheap.

184/27. *A. N. (Vigo).*—(1) The book nearest approaching your requirements is Remington's "Practice of Pharmacy," published in this country by Burroughs, Wellcome & Co., 21s. (2) The *Toothache-pencil* is a proprietary one. We do not know the composition of the liquid, but you may make a similar article by the following formula:—

Oil of cloves	ʒi.
Menthol	ʒi.
Cochineal colouring..	A sufficiency
Spirit of chloroform to	ʒij.

Mix.

Fill into suitable-sized tubes by means of a thistle-funnel (so that the top part of the tube may not be wetted), and draw out to a fine point.

195/42. *A. J. A. P. S.* has been so unfortunate as to weigh some cocaine hydrochlorate upon a scale-pan which had a trifle of pyoktanin adhering to it; his solution of cocaine has now a deep-blue colour, and he would like to remove

that, "at the same time leaving the cocaine solution in a fit state for use in the most delicate cases." Considering that cocaine is a much more delicate substance than pyoktanin, this is rather "a large order."

193/23. *Mortar and Pestle.*—(1) Concentrated Hydroquinone Developer:—

I.				
Hydroquinone	ʒij.			
Sulphite of sodium ..	ʒss.			
Metasulphite of sodium..	ʒj.			
Water to	ʒiv.			
Dissolve.				
II.				
Carbonate of potassium ..	ʒss.			
Water to	ʒiv.			
Dissolve.				

One drachm of each of these to ʒvj. of water makes 1 oz. of developer. (2) *Spirit of Chloroform and Camphor.*—You will see from page 564 of last volume that we have failed to obtain a precipitate with the above. (3) "Mortar and Pestle" also puts the following problem:—"Explain what part the HCl present in the stomach plays when *Blaud's Pills* (ferrous sulph. and sod. carb.) are swallowed in form of *Bi-palatinoids*." If "Mortar and Pestle" will submit himself to the necessary experiments, we will gladly record the results.

195/54. *Nigger.*—*Nigger-black.*—See *THE CHEMIST AND DRUGGIST*, November 28, 1891, page 797.

197/43. *Inquirer.*—Leeches are very difficult to keep alive. The bottom of the vase or jar containing them should be covered with small pebbles, and a sprinkling of sand. If a few stones bearing vegetation can be obtained from the bottom of a stream or pool, these are very useful to put in the jar. From 4 to 6 inches of water is sufficient, and it should never be entirely changed; syphon off a little as you add more fresh water. The jar should be kept in a temperate place.

197/53. *Natal* cannot keep the following *Nerve-killing Paste* always moist in the hot climate of Natal:—

Arsenic... ..	gr. iij.
Morphin. hydrochlor. ..	gr. x.
Creosoti	q.s.

Make a paste.

What it needs is 3 drops of glycerine, then add the creosote.

198/70. *Pepsin.*—*Acid Glycerine of Pepsin.*—See *THE CHEMIST AND DRUGGIST*, October 10, 1891, page 563.

198/33. *Hotspur.*—*Sherry* is always slightly acid, there being under 1 per cent. of acetic acid and acid tartrate of potash in it. If your wine contains more than that it is probably undergoing acetous fermentation. Write to the firm once more.

198/43. *Antipyrin.*—(1) Mixtures alone are of little use for *Husk* or *Hoose*, anti-parasitic inhalations being absolutely necessary. See "Veterinary Counter Practice," page 154. (2) We attend to the matter.

199/72. *Brixton.*—*Liq. Opii Sedat.*—*THE CHEMIST AND DRUGGIST*, February 28, 1891, page 321.

199/24. *Yorks.*—*Creosote Sheep-dip.*—We have examined your sample. It is a mixture of coal-tar "creosote" with resin soap. Try the following proportions:—Coal-tar creosote, 8 parts; resin, 2 parts; caustic soda, 3 parts; water, a sufficiency. Dissolve the soda in 8 parts of water, and add the resin and creosote, bring to the boil, and thin with water if necessary.

199/65. *J. E. S.—Cloudy Ammonia.*—See page 598 of the volume just completed. We expect those who wish replies by post to provide postage; apart from that, it is contrary to our rules to reply by post.

200/10. *Saline.*—The **Drying-rooms** in wholesale houses are generally situated over the steam-boilers, so that the waste heat from them suffices to do most drying operations. With hot-water pipes you are not likely to heat a room sufficiently to dry magnes. sulph. Such heat may drive off mechanically-adherent water, but not water of crystallisation. You should dry magnes. sulph. with a current of hot air (220° F.).

INFORMATION SUPPLIED.

188/67. "**Polarite**" is a mixture of magnetic oxide of iron and metallic iron containing carbon, together about 50 to 60 per cent, the remainder being insoluble silicious material, whose main function is to maintain the porosity of the mass. It forms a suitable filter-bed for the filtration of large bulks of water, the organic impurities of which it oxidises. When "exhausted" its oxidising-power may be completely restored by efficient aëration an indefinite number of times.

London, December 24. C. H. PIESSE, D.P.H., &.

188/67. "**Polarite**" is a water purifying and filtering medium. An analysis by an eminent chemist is as follows:—

Sesquioxide of iron	53.93
Magnetic oxide of iron	19.19
Protoxide of iron	7.25
Calcium oxide	1.42
Silica	15.16
Carbon	1.80
Water	1.44

London, December 27. THOMAS TYRER & CO.

SIR,—"**Polarite**" is used by many large water-companies for water-filtration, and is magnetic oxide of iron, Fe_2O_3 , PHOSPHATE. (198/9.)

Liq. Strontii iodidi (Paraf Javal).—The correspondent who has inquired about this preparation will obtain a pamphlet regarding it on application to Messrs. Wilcox & Co., 239 Oxford Street, London, W., who are agents for the makers.

INFORMATION WANTED.

The Editor invites, on behalf of inquiring subscribers, post-card replies to the following:—

199/72. A working formula for liquor rosæ dulc. conc.

212/13. Soya bean-meal for making diabetic bread: where obtainable?

New Companies.

CARBOLIC SMOKE-BALL COMPANY (LIMITED).—Capital 5,000*l.* in 1*l.* shares. Objects: To purchase and carry on the business heretofore carried on under the style of The Carbolic Smoke-ball Company, in London, Paris, New York, and Toronto, and to carry on the business of manufacturing and selling the two preparations known as "The carbolic smoke-ball" and "Sunilla," &c. The first subscribers, who take one share each, are: H. E. T. Turner, 12 St. Philip's Road, Surbiton, manufacturing chemist; F. A. Roe, 27 Princes Street, W., manufacturing chemist; D. T. Lark, 45 Oxford Road, N., clerk; J. Warren 29 Ivydene Road, Hackney, N.E., clerk; H. Wynn, 88 Rectory Road, Fulham, clerk; F. Steib, 18 Frederick Street, W.C., clerk; and W. Ostler, 50 Chestnut Avenue, Forest Gate, clerk. There shall not be more than five nor less than two directors, and the first is F. A. Roe. Qualification, 100*l.*

NEPTUNE SOAP SYNDICATE (LIMITED).—With a capital of 5,000*l.* in 5*l.* shares; generally to carry on business as manufacturers of and dealers in soap and soap ingredients. The first subscribers (who take one share each) are: W. A.

Bennett, 53 Chancery Lane, W.C., surveyor; C. J. Fox, 61 King's Cross Road, W.C., engineer; C. Bennett, Ravenscourt Park, W., engineer; H. R. Gough, 12 Regent Street, S.W., architect; T. Vivian Gurney, 144 Downham Road, Islington, gentleman; G. Allen, 393 New North Road, N., soap manufacturer; and D. Kingston, 79 Forest Road, Dalston, gentleman. There shall not be more than five directors. Remuneration, 500*l.* per annum, divisible. Registered office: 5 Guildhall Chambers, Basinghall Street E.C.

Gazette.

PARTNERSHIPS DISSOLVED.

Barnes, J., and Lumb, D., under the style of Barnes & Lumb, West Ardsley, near Wakefield, aërated-water manufacturers.

Growse, L., and Honeywill, S., under the style of Growse & Honeywill, Bileston, Suffolk, surgeons, apothecaries, and accoucheurs.

Hildesheimer, Albert, and Faulkner, C. W., under the style of Hildesheimer & Faulkner, Jewin Street, New Zealand Avenue, and Barbican, E.C., art publishers.

Sewell, C. B., and Crosby, T. B., under the style of Sewell & Crosby, Fenchurch Street, E.C., doctors of medicine.

Taylor, T., and Taylor, F. W., under the style of F. & F. J. Taylor, Newport Pagnell, chemists and druggists and mineral-water manufacturers.

THE BANKRUPTCY ACTS, 1883 AND 1890.

RECEIVING ORDERS.

Ashworth, John Robert, Heywood, Lancashire, late Hyde, Cheshire, chemist's assistant.

Griffith, Edward Parry, Newnham, druggist and seedsman.

Hebert, Martyn Carthew, Belsize Park, Hampstead, late Horseferry Road, Limehouse, director of limited companies, late soda manufacturer.

ADJUDICATIONS.

Aked, William (trading as Aked & Pott), Macclesfield, mineral-water manufacturer.

Griffith, Edward Parry, Newnham, druggist and seedsman.

Hebert, Martyn Carthew, Belsize Park, Hampstead, late Horseferry Road, Limehouse, director of limited companies, formerly soda manufacturer.

Next Week.

Meetings, &c., to be held, and business to be transacted thereat. Suitable notices will be inserted in this section if received by the Editor on or before Wednesday.

MONDAY, January 9.—*Society of Chemical Industry*, Chemical Society's Rooms, Burlington House, at 8 P.M. Papers will be read on: (1) "Qualitative Analysis of Colouring Matters," by Mr. A. G. Green. (2) "The Proportion of Free Fatty Acids in Oil-cakes," by Dr. B. Dyer. (3) "Further Notes on Nitrous Oxide," by Mr. Watson Smith.

WEDNESDAY, January 11.—Brighton chemists' ball in the Royal Pavilion.

THURSDAY, January 12.—*Liverpool Pharmaceutical Students' Society.*—Annual dinner and smoking-concert at the Adelphi Hotel, at 8 P.M.

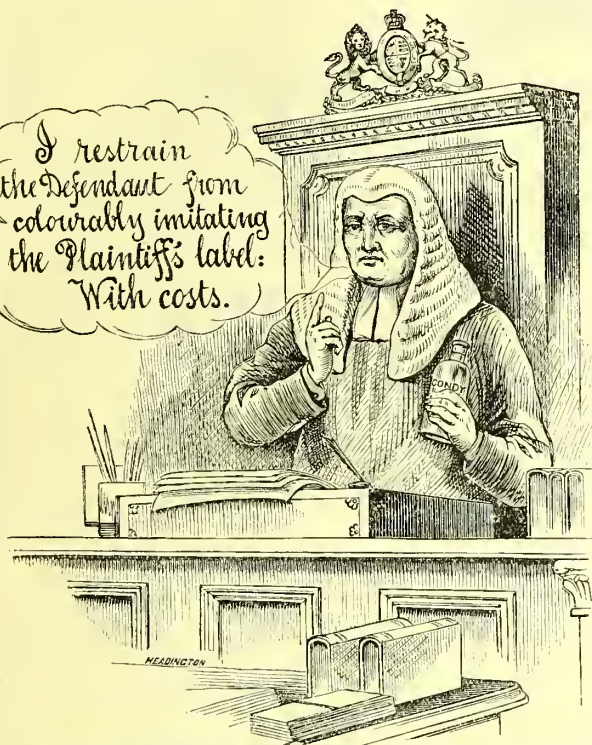
THURSDAY, January 12.—*Chemists' Assistants' Association*, 103 Great Russell Street, W.C., at 8.45 P.M. Musical and social evening, Mr. Charles Umney in the chair.

THURSDAY, January 12.—*Society of Arts*, John Street W.C. Indian section, at 4.30 P.M. "Upper Burma under British Rule," by H. Thirkell White, I.C.S. (Burma), C.I.E. The paper will be illustrated with lantern views.

THE British Pharmaceutical Council did not meet on Wednesday.

Condy's Fluid contains no trace of Permanganate of Potash.

I restrain
the Defendant from
colourably imitating
the Plaintiff's label:
With costs.



CONDY'S FLUID

TRADE MARK.

ANOTHER

INJUNCTION GRANTED

On 17th May, 1892.

Before Mr. Justice Manning.

CONDY & MITCHELL,

LIMITED,

(Proprietors of Condy's Fluid)

v.

BUTTERFIELD

(Chemist and Druggist).

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GRANULAR
EFFERVESCENT
PREPARATIONS.



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5 grs. in 60 grs.

This new remedy for Gout and kindred disorders, now being so largely tried by the Profession, is best given in our Granular Effervescent form.

Price per lb. .. 28/4
Size per doz. .. 38/8

**PIPERAZINE
WITH PHENOCOLL
HYDROCHLORIDE.**

5 grs of each in 60 grs.

Our Granular form is the best method for the administration of this new remedy for Rheumatic Gout, Rheumatism, &c.

Price per lb. .. 33/4
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HYDROCHLORIDE.**

5 grs. in 60 grs.

The new remedy for Neuralgia and Neuralgic Pains, especially in Influenza and ailments accompanied by feverish symptoms.

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5 grs. in 60 grs.

The value of this new preparation as an antipyretic and analgesic is now fully established. The Granular form is a very convenient and pleasant one for its administration.

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Size per doz. .. 12/-

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Bicarbonate of Soda	97.20
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Bleachers, Dyers; Glass, Paper, and Soap Makers.

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THREE qualities have been manufactured by us for many months past, viz :—

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This meets the B.P. test applied in its most accurate form, as follows, viz. :

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SALIPYRIN-RIEDEL is sold Wholesale by Messrs. ALLEN & HANBURYS, Plough Court,
Lombard Street, E.C.

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Professor Dr. Vogel says:—"... light snowy white and carefully prepared article—DISSOLVING COMPLETELY and quickly in water or alcohol."

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QUINONE. PATENT.** Light yellow crystals.
Insensible to moist air and light.

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Guaranteed to be sublimed from and retaining the fragrance of Gm. Benjamin.

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Perfectly white needles.

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Purest quality, powdered and granulated. Dissolves colourless in water, alcohol, and ether, free from resinous and colouring matter. For medicine and finest work in art.

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Dissolves colourless in water, alcohol, and ether, free from resinous and colouring matter. Used for similar purposes as the chemically-pure powder.

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Chemically and Physiologically Pure.

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"LANADEPS"

LLOYD'S "LANADEPS"

Is Wool Fat, specially purified, and contains 30 per cent. of water, and is capable of absorbing at least 50 per cent. more.

LLOYD'S "LANADEPS"

Is unirritating to and rapidly absorbed by the skin, thus making it particularly valuable for the application of such drugs as Mercurials, Iodide of Potassium, Iodoform, &c., &c.

LLOYD'S "LANADEPS"

Is put up in 1-lb. tins, price 1/4 each.

7-lb.	"	"	1/2 per lb.
28-lb.	"	"	1/1 "
56-lb.	"	"	1/- "

LLOYD'S "UNG. LANADIPIIS"

Is a cheap Ointment basis made with "Lanadeps," but of a softer consistence.

Is put up in 1-lb. tins, price 1/2 per lb.

7-lb.	"	"	1/- "
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SPECIAL NET PRICES FOR CASH WITH ORDER.

	1 lb.	7 lb.		1 lb.	7 lb.
Borax	1/2	1/-	Compound Sulphur (Garrod's)	1/2	1/-
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Chlorate of Potash and Chlorate of Potash and Borax in 3d. and 6d. boxes, 15/- and 30/- per gross.

All kinds of Tablets in 6d. and 1/- Metal Screw Cap Bottles, 3/6 and 7/- per doz.

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T. HOWARD LLOYD & CO.
HIGH STREET & TOWNHALL LANE,
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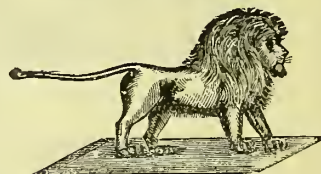
Examine your Stock. Every genuine Box and Bottle has the Lion Trade Mark on.



Facsimile of Ointment
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BURGESS' LION OINTMENT, PILLS, & NERVE TONIC.

(Late Proprietor, E. BURGESS, of Holborn, W.C.)

The Proprietary Rights in the above Ointment, Pills, and Nerve Tonic, together with all Trade Marks, Registered at Home and Abroad, **HAVING BEEN PURCHASED BY ME OF THE SENIOR OFFICIAL RECEIVER, Mr. GEORGE WREFORD** (he being Trustee to the Estate), all ORDERS and communications should be sent to address at foot.

Notice is hereby given that all those infringing my rights, either by preparing or selling spurious Ointment, Pills, or Nerve Tonic, will be at once proceeded against.

H. J. DEACON,

15 BROMLEY ROAD, BECKENHAM, KENT.

November 14, 1892.

TOWLE'S CHLORODYNE.

In **COUGHS, ASTHMA, BRONCHITIS, INFLUENZA**, &c., its effects are truly wonderful, immediately relieving the tightness of the Chest, allaying irritation of the Throat, promoting Expectoration, and speedily and effectually subduing the Cough.

It soothes the weary aching of **CONSUMPTION**, relieves the harassing Cough, and often prevents those sleepless nights so trying to the sufferer.

In **CHOLERA, DIARRHŒA, DYSENTERY**, &c., it has proved itself a most valuable specific, quickly relieving the pain and spasms, and seldom failing to check the disease; for which property, as well as for its value in Sea Sickness (for which it is the best remedy known), it should be an indispensable article in every emigrant's outfit.

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"Superior to every other I have tried."
F. H. GREEN, M.R.C.S.,
Rochdale Dispensary.

"Peculiarly serviceable in Bronchial, Spasmodic, and Neuralgic Affections."
ALFRED ASPLAND, F.R.C.S.

Consulting Surgeon to Ashton Infirmary.

"I have used it largely in Spasmodic and Painful Affections, Bronchitis and Neuralgia. It has the property of being readily combinable in ordinary prescriptions—an advantage over all similar preparations."

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A Surgeon writes:—"In Diarrhœa, Colic, Ague, Spasms, I have found it relieve more pain and cause more joy than any other article that can be named. Has proved itself a specific against Sea Sickness."

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"I am pleased to say that although I have not finished a quarter of the bottle (2s. 9d.) the pain has left my chest, and my cough is almost well." J. BROWN.

Immediately Relieves

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Sea Sickness, &c.**

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		Retail. s. d.	Per doz. £ s. d.
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Ditto	2 9	1 3 0
Ditto (3 fluid oz.)	4 6	1 18 0
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Ditto ditto	1 lb. 4/6		
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Ditto	0 7 1/2	0 5 8
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Ditto Jujubes		
Ditto in bulk, bottles free, containing			
1 lb., 2/9 each.			
Ditto ditto 1 lb. 10 oz., 4/6			
Ditto ditto 4 lb., 10/-			
N.B.—The Commissioners will allow them to be sold by the retailers without further duty, provided they are simply wrapped in paper, and not enclosed in a box, bottle, or packet.			
Thornton's Celebrated Toilet Cream	1 0	0 8 0
Ditto ditto	1 6	0 14 0
Ditto ditto	2 6	1 4 0
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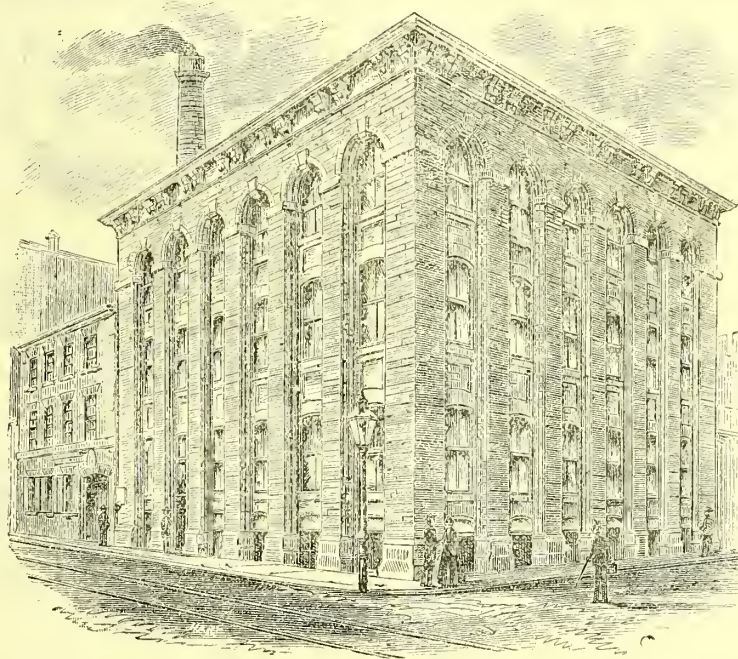
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BY US
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SPECIAL LINES.

	1 lb.	7 lbs.
CHLORATE OF POTASH	1/-	/11
CHLORATE OF POTASH AND BORAX	1/-	/11
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SODA BIGARB.	1/-	/11
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MANUFACTURERS of Very Superior Flexible Gelatine Capsules of Balsam Copaiba, Cascara Sagrada, Castor Oil, Cod-liver Oil, Santal Oil, &c. Samples and Lowest Quotations per 1,000, or in Boxes for Retail, will be sent on application for either the Wholesale or Retail Trade.

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Price 6d. per bottle, 41/- per gross. No heat required. Can be used with any pen. In dozens only, in neat Metallic Stand-

IMPROVED BUTTER COLOUR.

This article will be found the best in the Market, owing to recent improvements in manufacture. 6d. bottles, 4/- doz.; 1/- size, 8/- doz.; 2/- size, 16/- doz.; 4/- size, 32/- doz. For Butter only.

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for Colouring Cheese. 6d. size, 3/6 doz.; 1/- size, 7/- doz.; 1/9 size 10/- doz.; 2/9 size, 19/- doz.; 5/- size, 33/- doz.; 10/- size, 66/- doz.

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4/6 per bottle, 39/- per doz. In dry form, 4/6 per can, 39/- per doz.

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4/6 per bottle, 39/- per doz.

LUCILLINE

(Pure Petroleum Jelly) has again been greatly improved, and is far superior to any Petroleum Jelly in the Market. Melting-point, 97° F. Guaranteed perfectly pure and harmless. Can be used internally. All grades from crude to highly refined. Best Quality.—In various sized tins, elegantly decorated, 2 oz. to 10 lbs.; strong wooden pails, 25 lbs. and 50 lbs.; barrels, 200 lbs. and 350 lbs. Veterinary Brand.—In 1, 5, and 10 lb. tins; pails and barrels as above.

Chemists should order early from the Wholesale Houses, to ensure a prompt supply, as the demand for Lucilline very great, and constantly increasing.

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R. T. DUN & CO.'S IMPROVED SOFT GELATINE CAPSULES (AND SPECIAL HARD FOR EXPORT.)

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Guaranteed to keep good indefinitely in all climates.

1/- size	Per dozen, 10/-	...	Per gross, 105/- net.
2/- " ...	...	20/-	...	210/- "
5/- " ...	...	50/-	...	525/- "

PUMILINE.

Essence 1/6	Per dozen, 15/-, less 10 per cent.	Liniment 1/9	Per dozen, 20/-, less 10 per cent.
" 2/6	24/- " 10 "	Jujubes 1/1	10/6 " 5 "
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IN RUBY, BLUE, AMBER, AND OPAL GLASS.

Send particulars of size, subject matter, and colour, when price for one Tablet and upwards will be sent.

For Proprietary Articles, 100 8x6 Ruby Tablets, £8 15s. 0d.

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TO PREVENT FRAUD, DEMAND BUSINESS CARD FROM TRAVELLERS.

CAUTION!

SPECIAL NOTICE TO THE TRADE

LION OINTMENT & PILLS.

DEACON v. BURGESS.

In the High Court of Justice, Chancery Division, on Saturday, December 17th, Mr. Justice Kekewich, in delivering judgment, said "that it will be sufficient, I think, and I am sure quite safe now to say that the plaintiff (Mr. H. J. Deacon), who certainly has not proved his knowledge of the genuineness, but who has clearly indicated his ignorance, and who is attempting to sell as genuine medicine that of which he is really ignorant." N.B.—A full report of the Judgment appeared in THE CHEMIST AND DRUGGIST, December 24 last.

CHEMISTS ARE PARTICULARLY REQUESTED TO ORDER

E. BURGESS, JUNR.'S, LION OINTMENT AND PILLS,

And to see that the Label bears Address,

59 GRAY'S INN ROAD, W.C.

As these are the ONLY GENUINE Goods, and this fact will be EXTENSIVELY ADVERTISED THROUGHOUT THE KINGDOM.

The Trade is respectfully requested to refer to the issues of "THE CHEMIST AND DRUGGIST" of December 10 and 17, and to read the Statutory Declaration made by E. Burgess, Junr., before the Lord Mayor of London. E. B., Junr., is the only person living with the knowledge of method of manufacture of these Remedies, and all statements to the contrary are untrue.

BEECHAM'S TOOTH PASTE.

All Chemists, Druggists, and Stores should Stock this new article, which is being well advertised, and, as it is a really good speciality, will shortly be in great demand. It is put up in collapsible tubes, retail price 1/-, and can be obtained from any Wholesale House.

BEECHAM'S PILLS

The most saleable Patent Medicine in the market.

In Boxes 9½d., 1s. 1½d., and 2s. 9d. each.

HOME RETAILERS desirous of exhibiting Iron Tablets, Showcards, or Dummies, and wishful to have a good supply of Handbills, Beecham's Oracles, Music, &c., are requested to notify their requirements to the Proprietor,

THOMAS BEECHAM, St. Helens, LANCASHIRE.

WILEY'S CHEMICAL ESSENCE

FOR

LAMENESS IN HORSES.

HANDBILLS, WITH NAME & ADDRESS, SUPPLIED GRATIS.
50 YEARS' UNBROKEN SUCCESS.

SOLE MAKER AND PROPRIETOR, FRANCIS E. ROOKLEDGE, CHEMIST, EASINGWOLD, YORK.
TO BE HAD OF USUAL WHOLESALE HOUSES.

A CHEMIST wanted in every town to represent SAUTER'S "STAR" ELECTRO HOMŒOPATHIC REMEDIES. Already sold and employed by OVER 600 CHEMISTS.

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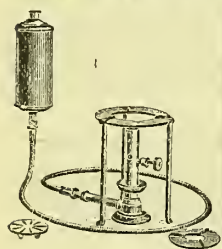
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Year by year since the opening of our factory in Messina (which marked the advent of pure Oil upon the Market), the great progress that we have made in the sale of our Oil Lemon "W. J. B. & Co.'s Speciality," has evidently convinced the majority of the Trade of the advisability of using pure Oil only. The trade in Oil of Lemon being one of great confidence, we have had enormous difficulties to overcome; our success therefore is correspondingly satisfactory.

The unholy competition, of which we have so often complained, is by no means dead, and to warn the Trade how they may be misled by some of our competitors and thereby become considerable losers, we would mention a little incident which occurred at a recent Exhibition. Our representative called at the exhibit of a competitor, which gentleman, not knowing to whom he was speaking, immediately produced a sample of a parcel of Oil of Lemon which he assured him was New Oil of this year's crop and just arrived. As this event happened in the month of October, such an article was not likely to have been produced except for museum purposes. Further, without being requested to comment upon our own make, this energetic salesman made use of the remark that "It was equal to Bush's, and the price was only half"!!! We much appreciate this unintentional compliment, by making our Oil the standard of excellence, for without doubt it is.

We venture to state that there is no Oil offered on the Market that can compare with our "W. J. B. & Co.'s Speciality," it being made entirely from the finest Fruit and absolutely pure.

With regard to the Market, we refer you respectfully to the "Market Report" in our Monthly Price Current, which we consider is the true situation.

We take this opportunity of mentioning that should any of our friends be travelling in Sicily during the Lemon Season, we shall be very pleased to show them over our works and the process of manufacture.

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